Evaluation of a CBT group treatment for in-patients with auditory hallucinations : a pilot study

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Main Thesis

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ABSTRACT

The present investigation evaluated the effectiveness of a school-based group intervention designed for children who had experienced war-related trauma. Twenty-six children who were refugees or asylum seekers from war-affected countries participated in this study. Participants ranged in age from 11 to 15 years. A controlled study design was used to test the effectiveness of this manual-based intervention when implemented within inner London secondary schools. The treatment group (n=15) received six sessions of group cognitive-behavioural treatment (CBT) over a six week period, while the control group (n=11) were placed on a waiting list for six weeks and then invited to enter treatment. Assessments were conducted for both groups on two different occasions: (time 1) baseline and (time 2) post-treatment for the CBT group and the end of an intervention-free waiting period for the control group. At each assessment the children completed self-report measures, which assessed the severity of post-traumatic stress, depression, and anxiety. In addition, teachers completed behavioural ratings for each child. The main outcome measure was the Revised Impact of Event Scale (R-IES; Dyregrov & Yule, 1995), 13 item version. The findings revealed that children in the CBT group showed a significant improvement on this main outcome measure with decreases in overall severity of post-traumatic stress symptoms and symptoms of intrusion at post-treatment. Significant improvements were also noted in overall behavioural difficulties and emotional symptoms. No such improvements were found in the control group. This preliminary research suggests that further studies should be conducted to evaluate whether non-mental health professionals can use this manual to deliver group CBT to children suffering from traumatic events. The potentially far-reaching implications of this manual-based intervention are discussed.

Chapter 1: INTRODUCTION –

MENTAL HEALTH NEEDS OF YOUNG REFUGEES

1.1 An Increasing Refugee Population

Civilian populations have been increasingly targeted in recent wars with 'ethnic cleansing' campaigns and deliberate massacres becoming a common reality. United Nations Children's Fund (UNICEF) recently estimated that 80% of the victims in modern wars are women and children. In response to violence, many families flee their native countries in search of safety. There are now an estimated 21.5 million refugees worldwide (UNHCR, 1999).

According to the United Nations (1951 UN Convention) a refugee is defined as 'any person, who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his/her nationality and is unable or, owing to such fear, is unwilling to avail himself/herself of the protection of that country; or who, not having a nationality and being outside the country of his/her former habitual residence as a result of such events, is unable, or owing to such fear, is unwilling to return to it'. Thus a refugee is an individual who leaves his or her native country to go to another country due to war or violence which threatens the safety of that individual, their family or community.

Refugee populations have grown tremendously over the past few decades. In 1960 there were an estimated 1.4 million refugees worldwide. However, by 1993 the United Nations High Commission for Refugees (UNHCR) reported a total of 18.2 million refugees. The majority of refugees are in Africa and Asia, with just over 6 million living in Europe.

Although the refugees now living in Europe come from all over the world, in recent years the majority have arrived from the former Yugoslavia and USSR, the Middle East, and the Horn of Africa.

Unaccompanied children make up 2.5-5% of the refugee population. In the 1996 UNICEF State of the World's Children address it was reported that in the last ten years 2 million children have died in war, 4-5 million have been disabled or wounded, 12 million made homeless, and 1 million orphaned or separated from parents.

1.2 Refugees in the United Kingdom

The UK government provides little information on the number of refugees currently living in Britain or the number who will eventually be granted asylum. The number of refugees now in the UK is estimated to range anywhere between 120,000 to 250,000. During the 1990s, the majority of refugees arriving in the UK came from the former Yugoslavia and USSR, Iran, Iraq, Nigeria, Somalia, Afghanistan, and Sri Lanka (Refugee Council, 1998). Most of these refugees have settled in the inner boroughs of London (Travis, 1998).

The term 'asylum seeker' describes an individual who has crossed an international border in search of safety and refugee status in another country. It is extremely difficult for people to obtain asylum. There were 32,500 asylum applications lodged in the UK in 1997. Out of this number 76% of applications were refused, 13% were granted refugee status, and 11% received exceptional leave to remain (ELR). Refugee status protects a person from being returned to his or her country of origin. It is normally given for four years and then the refugee reapplies to the Home Office for indefinite leave to remain, which is usually granted. There are no restrictions for people with refugee status regarding work or rights to access

public funds and it also gives people the right to bring immediate family into the UK. ELR is usually granted if the Home Office feels that the person is not a refugee under the United Nations definition but cannot return to his or her country because the situation may be too dangerous there. ELR is not associated with any restrictions on work or recourse to public funds. However, it does not afford the same rights as refugee status and must be renewed at intervals. The administrative procedures associated with obtaining asylum are arduous, stressful, and often continue for many years.

The experience or fear of violence, killing, and torture, as well as the resulting disruption that leads people to become refugees, increases the risk for psychological distress and the development of disorders (Rousseau, 1995). Not only do refugees suffer from past losses or traumatic experiences but they also face further difficulties upon their arrival in a foreign country. They are often fearful, anxious, angry, and distressed. In addition to the obstacles confronted when attempting to obtain refugee status, many aspects of the UK's asylum policy now place asylum seeking families, including children, under even greater stress. Recent legislation (The Asylum and Immigration [Appeals] Act 1993, the Asylum and Immigration Act 1996, and the Housing Act 1996) further restricts asylum seekers' entitlement to housing and welfare benefits. Refugees are placed under more strain due to low socio-economic status, high unemployment, frequent accommodation changes, and uncertainties over asylum applications (Refugee Council, 1996). Many have lost the support of their community and customs. They may also have to face racial discrimination.

1.3 Refugee Children and Adolescents in London

At least 40% of those living within refugee communities in the UK are under the age of 18. Approximately 50,000 refugee children and adolescents are currently living in the UK,

mainly in London (Hodes, 2000). Rutter (1994) estimated that in Greater London schools alone there are 21,500 refugee children. The numbers of unaccompanied refugee children coming to the UK has also increased substantially, from 197 in 1992 to 982 in 1997 and rising to 4,405 by 1999. The majority of unaccompanied refugee children are awarded refugee status or ELR.

These young people have been exposed to high levels of violence. They have also suffered multiple losses and a disrupted social life. Therefore, they are more vulnerable to psychological difficulties and up to 40% report symptoms of depression, post-traumatic stress disorder, and other anxiety-related difficulties (Hodes, 2000). As many of these young people require help from the mental health services, schools and social services may have a key role to play in providing such support and assistance.

1.4 Mental Health Needs of Refugee Children

The application of psychiatric diagnoses, such as Post Traumatic Stress Disorder (PTSD), to refugees and asylum seekers is a topic of much controversy. PTSD is characterised by exposure to an extremely stressful or catastrophic event or situation followed by three symptom clusters. These include repeated reliving of the trauma, e.g. through intrusive images or dreams of the event, hyperarousal, e.g. increased vigilance or disturbed sleep, as well as persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (American Psychiatric Association, 1994; World Health Organisation, 1992).

It has been claimed that such classification is dangerous because it results in normal responses to abnormal situations being simply construed as abnormal states (Richman, 1993; Kleinman & Kleinman, 1991). However, people display a wide range of responses following

exposure to traumatic events, therefore what constitutes the 'normal' range cannot be assumed. The use of psychiatric diagnoses is also sometimes criticised as an inappropriate form of labelling that detracts from a more contextualised understanding of distress and fails to take into consideration the range of losses and adversities suffered. On the contrary, in someone diagnosed with PTSD social causes are often considered essential to forming an accurate psychological conceptualisation of the individual's case and planning helpful treatment strategies.

People have also stated that it is wrong to apply Western and biomedical views of psychiatric classification to a culturally diverse world (Kleinman, 1987; Littlewood, 1992; Westermeyer & Janca, 1997). However, substantial evidence now exists regarding the cross-cultural validity of PTSD. Exposure to traumatic events of a catastrophic nature, such as violence or torture, can be consistently recounted and assessed in diverse cultures (Willis & Gonzales, 1998). PTSD symptoms of intrusion, avoidance, and arousal have been found repeatedly in young people of different cultures after their exposure to war (Arroyo & Eth, 1985; Kinzie, Sack, Angell, Manson, & Rath, 1986; Saigh, 1989a, 1991). For example, Sack, Seeley, & Clarke (1997) conducted interviews with 194 Cambodian youngsters aged 13-25, most of whom had experienced massive war trauma in childhood. The four symptom factors found were arousal, avoidance, intrusion, and numbing, similar to DSM-IV criteria. Strong evidence for the validity of PTSD and post-traumatic symptoms also comes from numerous studies which identify an association between the severity of the exposure (number of events and proximity) and the level of post-traumatic experiences in children and adolescents from many cultures, including Vietnamese (Smith Fawzi et al., 1997; Mollica, Poole, Son, Murray, & Tor, 1997), Cambodian (Sack, Clarke, & Seeley, 1996), Palestinian (Garbarino &

Kostelny, 1996; Thabet & Vostanis, 1999), Middle Eastern (Montgomery, 1998) and Central American (Espino, 1991).

Although a substantial amount of literature now exists on the mental health of adult refugees, there is far less information available on children and adolescents. PTSD and related psychological difficulties are widely recognised as common reactions to traumatic events in adults. However, it is only very recently that the presence of PTSD has been acknowledged in children. Research now suggests that the incidence of PTSD in children and adolescents who have been exposed to trauma may reach levels comparable to those in adults. For example, following exposure to war 1/3 of Central American refugee children met criteria for PTSD (Arroyo & Eth, 1985), while a 50% prevalence of PTSD was identified in adolescent Cambodian refugees (Kinzie et al., 1986). Much of the research with young people has appeared since 1990 and comes from studies or work carried out in North America.

1.5 Epidemiology

A number of studies have investigated the prevalence, type, and severity of psychological distress in young refugees. As little research has been conducted in the UK, it is necessary to rely on studies from other countries, particularly the United States, Scandinavia, and Israel. Investigators have used various instruments and methodologies when sampling populations. The majority of studies describe refugees who have arrived in industrialised countries and are living in community settings (Clarke, Sack, & Goff, 1993; Kinzie et al., 1986; Quirk & Casco, 1994; Sack et al., 1994; Weine et al., 1995). However, some studies have investigated community samples of young refugees living in camps in South East Asia (Mollica et al., 1997). Most reports are based on ethnically homogenous samples but school-based studies include children from diverse countries (Rousseau, Drapeau, & Corin,

1996). Few studies describe those attending child mental health services (Williams & Westermeyer, 1983). Some studies report symptoms (Cohn et al., 1985; Lukman & Bach-Mortensen, 1995; Montgomery, 1998) while others have used questionnaires to identify psychiatric cases (Felsman, Leong, Johnson, & Felsman, 1990; Mollica et al., 1997). Studies of high quality have used standardised interviews, which describe the type and frequency of psychiatric disorders (Clarke et al., 1993; Hubbard, Realmuto, Northwood, & Masten, 1995; Kinzie et al., 1986, 1989; Sack et al., 1996, Tousignant et al., 1999; Weine et al., 1995).

The results from interview-based studies with young refugees from South East Asia are frequently reported. One study carried out in the United States involved 46 students, aged 14 to 20, who were originally from Cambodia and 40 of whom had survived the Pol Pot regime (Kinzie et al., 1986). These students had been exposed to traumatic events, such as starvation and separation from family members, associated with this regime when they were 8-12 years old. Approximately half of this group had seen people being killed and experienced being beaten. Twenty of the group had PTSD, 5 had major depression, and 16 had other affective disorders. On a measure of social adjustment, the group's mean score was within the clinical range. A larger study was also conducted in the U.S. which investigated a randomly chosen sample of 209 Cambodians aged 13 to 25 years (Sack et al., 1994). The youngest members of this group would have been infants at the end of the Pol Pot regime, while the oldest would have been 11 or 12 years old. Eighteen percent of the adolescents met criteria for PTSD and 11% for depressive disorders. Their parents had even higher rates of psychiatric disorder with 53% of mothers and 29% of fathers having PTSD. Also 23% of their mothers and 14% of fathers had depression. Rates of PTSD vary in these studies because of variable exposure to traumatic events. Evidence suggests that greater

exposure to more personally threatening events is more likely to be associated with the onset of the disorder (Sack et al., 1994).

Although not investigated as thoroughly as symptoms of post-traumatic stress, evidence also exists for higher rates of depression and anxiety in children who have experienced war (Chimienti, Nasr, & Khalifehi, 1989; Mghir, Freed, Raskin, & Katon, 1995; Zivcic, 1993). Comorbidity with PTSD is common, particularly with depression and anxiety symptoms (Kinzie et al., 1986). Sack et al. (1994) showed that young Cambodians in the U.S. who had PTSD were 4.3 times more likely to have an associated depressive disorder than those without PTSD. However, there was no evidence to suggest that PTSD was followed by conduct or adjustment disorders. One study of 59 Cambodian-American adolescents and young adults who had been exposed to massive trauma as children found 24% had PTSD and out of these 57% also had an additional affective or anxiety disorder (Hubbard et al., 1995).

Depression may occur because of ongoing loss following resettlement (Clarke et al., 1993). Interviews were conducted with a group of 170 Cambodian young adults who were living in the U.S. in order to investigate the association between severe war trauma due to exposure to the Pol Pot regime, resettlement stress in the U.S., and recent life events (Sack et al., 1996). There was a 26.5% point prevalence rate for PTSD. The rate for major depressive disorder was 12.9%, which was approximately four times higher than the current prevalence rate reported in a large randomly selected sample of school students living in the same area of the country (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). For those who only had PTSD, war trauma was a significant predictor of symptoms, whereas for those with

depression the only significant predictors were current life stress and poorer spoken English (Sack et al., 1996).

Similarly high rates of psychiatric disorder have been found in young refugees all over the world. For example, amongst adolescent refugees from Bosnia, who had been exposed to war-related 'ethnic-cleansing', 25% were diagnosed with PTSD and another 17% with depressive disorders (Weine et al., 1995). Young Vietnamese refugees were also found to be suffering from similar rates of psychiatric difficulty (Felsman et al., 1990). A large interview-based community study was carried out in Montreal, Canada with 203 refugee adolescents from 35 different countries, the majority of whom had not been exposed to war. The study found that the rate of psychopathology in this group of young refugees was 21%, compared with 11% in the comparison group, which consisted of Canadian adolescents living in the same area (Tousignant et al., 1999). There were also elevated rates of overanxious disorder (13%), depression (5%), and conduct disorder (6%) in the group of young refugees. In general, externalising symptoms and problems of conduct have been much less intensively investigated. Refugees may also present with disorders, which they probably would have developed even if they had not been exposed to the adversities, which resulted in their becoming refugees. Such difficulties include learning disabilities and developmental disorders, obsessive-compulsive disorder, and psychoses (Williams & Westermeyer, 1983).

1.6 Resilience and Protective Factors

There are a number of individual, family, and social factors that may enhance resilience (Elbedour, Bensel, & Bastien, 1993). Individual factors such as age and gender have been investigated. Although it has been suggested that young children may be protected from

traumatic experiences by their parents or family members because of cognitive immaturity, findings are mixed (Elbedour et al., 1993; Garbarino & Kostelny, 1996; Sack et al., 1996). During wartime males and females may be subjected to significantly different experiences, e.g. rape. However, when both males and females are exposed to similar traumatic events, one gender does not appear to be more resilient than the other.

Strong evidence exists for the protective role of the family. Garmezy and Rutter (1985) reviewed the effect of diverse stressors, including war and natural disasters, on children and concluded that the family offered a buffering effect. It has also been found that young Vietnamese refugees in the Philippines who were accompanied by family members were less distressed than those who arrived without any relatives (Felsman et al., 1990). Certain qualities, which are often aspects of family life, appear to play a protective role. For example, a study conducted with Israeli preschoolers under SCUD missile attacks during the Gulf War found that greater family cohesion and adaptability were associated with fewer externalizing symptoms and stress reactions in 3 to 4 year olds (Laor et al., 1996).

Wider community factors may also be important. Such as having greater commitment to the aims of the combatants' own side (Punamaki, 1996). Unfortunately, it is difficult to determine how culture and ethnicity is relevant because studies have not been able to separate it from the type of adversities experienced that are themselves associated with social group membership (Rousseau, Drapeau, & Corin, 1997).

1.7 Risk Factors for Poor Psychological Adjustment in Children Exposed to War

Refugees and asylum seekers are at increased risk of developing psychological difficulties as a result of the traumatic life experiences, such as exposure to war and violence, as well as the

variety of losses they have suffered (Hodes, 1998; Sack, 1998). In addition, they are often subjected to ongoing stressors while living within a host country. Additional sources of stress include uncertainty about asylum status, negotiations with the immigration authorities, inadequate housing, frequent moves, prohibitions on employment, and financial hardship (Rousseau, 1995; Sack, 1998). Adversities, such as the displacement of families or the lack of housing/employment have also been found to result in increased psychiatric morbidity (Pynoos et al. 1993).

Another important risk factor for children is the type and duration of their exposure to traumatic events. These two aspects of exposure are related to the levels of psychological distress experienced by children (Macksoud, 1992; Kuterovac, Dyregrov, & Stuvland, 1994). Children who report massive amounts of exposure to war stressors have correspondingly high levels of PTSD symptoms (Smith, Perrin, Yule, Rabe-Hesketh, 2001).

An individual's perception of the degree of personal threat which was present and their level of involvement during the traumatic event are also associated with psychological maladjustment (Garbarino & Kostelny, 1996, Kinzie et al., 1986; Mollica et al., 1997; Sack et al., 1996, 1997). For example, studies have found that if a traumatic event involves a direct threat to an individual's survival then it results in increased post-traumatic stress symptoms, regardless of culture. Such findingss were obtained with children in Kuwait (Nader, Pynoos, Fairbanks, Al-Ajeel, & Al-Asfour, 1993) and adult Pol Pot survivors (Carlson & Rosser-Hogan, 1994).

Poor maternal mental health is a further risk factor associated with psychological distress in children (Bryce, Walker, Ghorayeb, & Kanj, 1989; Dawes, Tredoux, & Feinstein, 1989; Mghir, Freed, Raskin, & Katon 1995; Smith, Perrin, Yule, & Rabe-Hesketh, 2001). This

relationship may be due to shared wartime experiences, exposure to the same traumatic reminders or shared living conditions. It may also be explained by similar learned coping styles or shared familial vulnerability. There is an established link between parental psychiatric disorder and childhood disorders (Garmezy & Masten, 1994). A variety of childhood difficulties may be associated with parental psychological difficulties. For example, children of torture victims who seek asylum in other countries may have high levels of emotional and somatic symptoms even if they themselves were not exposed to any traumatic events (Lukman & Bach-Mortensen, 1995; Montgomery, 1998).

There may also be a genetic vulnerability to PTSD. Psychological disorders associated with refugee experiences appear to cluster in families. Sack, Clarke, & Seeley (1995) conducted a study with 119 Khmer adolescents and one of their parents to explore the intergenerational concordance of PTSD. Both the parent and child had experienced the same war trauma at the same time during the four years of the Pol Pot regime. When the parent had PTSD, there was a significantly increased risk that the adolescent would also have PTSD. This was not accounted for by factors such as the level of exposure to war trauma or living arrangements. According to the investigators the most parsimonious explanation appeared to be genetic susceptibility. Such findings are consistent with genetic studies, which suggest that there is an inherited vulnerability to PTSD (True et al., 1993). However, this mechanism is not inconsistent with intra-familial transmission by learning about the effects of war and genocide. For instance, studies have found that soldiers who were the children of Holocaust survivors were at increased risk of PTSD compared to those whose parents were not exposed to the Holocaust experience. It has been suggested that learning about their family's experience and heightened arousal may be in part responsible for increased vulnerability (Solomon, Kotler, & Mikulincer, 1988).

One final risk factor which may result in poor psychological adjustment is the disappearance of a loved one, either family member or friend. This type of loss is accompanied by uncertainty regarding death. Therefore, people are not allowed to grieve fully or to participate in funeral rites. For understandable reasons, this often proves more distressing for children than certain knowledge of death (Quirk & Casco, 1994). In conclusion, any of the above factors would appear to place children at an increased risk of psychological maladjustment.

1.8 Enduring Nature of Psychological Disorders in Refugee Children

Exposure to war and genocide appears to have long-term adverse effects on mental health. Evidence of such negative effects comes from studies in Israel involving Holocaust survivors. These survivors show more vulnerability to future psychological trauma. For example, Holocaust survivors were more likely to experience PTSD after exposure to SCUD missile attacks during the Gulf war (Robinson et al., 1994).

The enduring nature of psychological difficulties due to traumatic wartime experiences has been documented in refugee children, as well. Psychiatric symptoms and disorders in refugee children have been found to be extremely persistent. One follow-up study of 46 young Cambodian refugees, who had been traumatised as children, revealed that three years after they were first assessed 48% still had PTSD, which was almost identical to the percentage found at the initial interview (Kinzie et al., 1989). Those with PTSD also showed poorer social adjustment. Six years after the initial assessment 38% still had PTSD. However, rates of depression had fallen from 50% to 6% (Sack et al., 1993). Twelve years after the initial study, 35% still had PTSD and 14% had depression (Sack, Him, & Dickason, 1999). This

marked persistence of PTSD is consistent with findings from other studies involving children who developed PTSD following other types of traumatic events (McFarlane, 1987; Terr, 1983).

Chapter 2: PROVISION OF MENTAL HEALTH SERVICES FOR YOUNG REFUGEES

2.1 Therapeutic Issues Specifically Relevant to Refugees

Certain issues are of particular relevance when working with refugees from war-affected countries. For instance, therapists should bear in mind that the structure and nature of assessment interviews may remind individuals of past interrogations. Refugees who do not have secure asylum status may also fear a lack of confidentiality, which therefore prevents them from revealing important information. Many refugees have escaped from horrible circumstances and may not wish to reflect on the past but instead choose to focus on the future (Papadopoulos, 1999). Such a focus does not necessarily need to be discouraged as a large study in Vancouver has found that holding a more future-oriented view of time was associated with less depression in refugees (Beiser & Hyman, 1997). Frequently refugees need to discuss practical or present difficulties rather than past experiences due to the high levels of social and material adversity they are living under. As many refugees have only a limited knowledge of their therapist's language, interpreters are often required. Ideally, the interpreter should be of the same ethnic background as the client so that a trusting relationship may be established. Cultural differences will also need to be acknowledged and respected.

In addition to these general issues, young refugees present to mental health services with their own specific needs. For instance, when working with children or adolescents it is especially important to involve their family or social network so that the children continue to feel supported by their community. Multi-agency collaboration is often required between

mental health, social services departments, and education. It is common for refugee or asylum seeking parents to hold high aspirations for their children. Therefore, they may be reluctant to allow their children to miss several hours of class time in order to see a mental health professional.

Although offering psychological treatment to refugees may at first sound ridden with difficulties, there are reasons for optimism as well. A study conducted in West London showed that although young refugees and their families had a greater need for interpreters, less family support, and more economic adversity, they were not more likely to drop out of treatment prematurely when compared to culturally matched immigrant and white British children. This suggests that refugee children and their families value the treatment and support they are offered (Howard & Hodes, 2000).

2.2 Development of Mental Health Services for Refugees

Psychologically distressed refugees and their families may have trouble accessing mental health services for a number of reasons (Hodes, 2000). Parents or legal guardians may not recognise emotional difficulties in their children or may hold a culturally different perception of distress or difficulty. Frequent moves due to re-housing, as well as the language barrier may make attendance at child and adolescent mental health clinics difficult. Refugees are able to access primary care services in the UK and through this channel some distressed individuals will be referred on to specialist mental health services. However, it seems unlikely that all those who need help are able to gain access to it in this way. Some families are not registered with GPs so they cannot be referred on to the specialist services, which they require.

Attempts have been made to make mental health services more accessible to a greater number of refugees in the UK. For example, in the UK Somalian refugees have developed their own counselling service for people from Somalia and other culturally related people from the Horn of Africa (Dihour & Pelosi, 1989). This appears to be an excellent idea as refugee communities often contain doctors and psychiatrists who may wish to offer their services. The service offers social support and psychosocial counselling. Such counselling services can then link in with existing mental health services when drug prescriptions or psychiatric admission is necessary. Another type of service, which was first set up in London to meet the specific needs of refugees is the Medical Foundation for the Care of Victims of Torture. It offers assessment, support, and treatment to victims of torture. Much of their work entails psychiatric assessments and treatment for its service users, including children and families.

2.3 Child and Adolescent Mental Health Services

There are a variety of reasons why mental health services are underused by young refugees in relation to their need. Parents or guardians may be unaware of the children's distress (Sack, Angell, Kinzie, & Rath,1986). This lack of awareness is sometimes because of the adult's own distressed emotional state and past experiences. It is also possible that these adults' have a completely different understanding of psychological functioning and may not distinguish between psychological and physical symptoms, which require separate services (Hodes, 1992). The practicalities of getting to services, the cost, childcare during meetings, and difficulties communicating in the service's language all serve as potential barriers. For such reasons, health services tend to be underutilised by refugee populations. These difficulties suggest that greater reliance on non-medical agencies, such as education and social services, is necessary to help young refugees obtain appropriate mental health

assistance. Schoolteachers who have regular contact with these children may have a particularly important role to play, as they are in the position to identify a significant number of emotionally disturbed pupils (Rousseau, Drapeau, & Corin, 1996; Sack et al., 1986). Therefore, school-based interventions appear to be feasible and may make referrals on to child psychiatry clinics unnecessary.

2.4 The Role of Schools

As many refugee families refuse to accept referrals to mental health services and are reluctant to remove their children from school in order to attend such appointments, the most ideal setting in which to offer psychological support to young refugees may be their schools (Rutter & Jones, 1998). Members of school staff are also in a good position to detect mental health difficulties in refugee children as they interact with them on a daily basis. However, it may be difficult for teachers to accurately assess a student's level of difficulty when the child is not yet fluent in the English language.

It is also important to consider whether refugee students display specific difficulties within the school setting which may have a negative impact upon their education. For instance, one study was conducted within a Melbourne Muslim school to determine whether there were more behaviour problems in Muslim children who were Lebanese refugees compared with other Muslim immigrant children (El Habir, Marriage, Littlefield, & Pratt, 1994). Behaviour checklists completed by teachers revealed that Lebanese refugee children were no more aggressive than other children. However, Lebanese children scored significantly higher on measures of anxious behaviour. Male Lebanese children also scored significantly higher on inattentive behaviour.

Another study investigated whether there was a strong association between learning difficulties and emotional problems among refugee children from Southeast Asia and Central America (Rousseau et al., 1996). This study revealed that learning difficulties and levels of academic achievement were associated with emotional problems. A broad range of emotional symptoms are associated with learning difficulties, including depression (Weinberg et al., 1989) and externalised symptoms (Frick et al., 1991; Hinshaw, 1992), such as behaviour problems, aggression, and hyperactivity. Therefore, it could be hypothesised that offering psychological help which effectively resolves the emotional difficulties of refugee students might also prove beneficial to the school, as the number of children with learning difficulties and low academic attainment might decrease.

A school-based mental health service for psychologically distressed refugee students was recently established within a London primary school. (O'Shea, Hodes, Down, & Bramley, 2000). Teachers identified refugee students who appeared to be experiencing psychological difficulties and referred them to a mental health worker, who offered treatment on the school site. Referrals were made for fourteen children aged 7-11 years who had been exposed to high levels of past violence and losses, as well as ongoing socio-economic adversity. The children's psychological difficulties were primarily related to these adversities but a small number also appeared to have specific learning or academic difficulties. The difficulties often manifested as inattention or hyperactivity within the classroom. A variety of psychological and family interventions were offered. Improvements in the children's behaviour were reported following the intervention with a reduction in scores (21.3 to 15.7) on the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1994). Therefore the intervention was viewed as helpful. In addition, this model of mental health provision appeared to be acceptable to the children, families, and school.

In spite of a very high level of psychosocial adversity and severity of disorder, most families engaged quickly in the project and once involved in treatment remained engaged even after transfer to their local Child and Adolescent Mental Health Service (CAMHS) venue. Due to the mobile nature of this population some drop-out due to re-housing in distant parts of London was inevitable. However, the attendance rate of 12 out of 14 families compares very favourably with most child psychiatry out-patient clinics (Howard & Hodes, 2000). The study also suggests that teachers were able to identify psychologically disturbed refugee children. All children referred had psychiatric disorders and 10 of 12 children had scores in the abnormal range on the SDQ. This indicates that the questionnaire has high sensitivity within this sample of children. It may also prove to be a useful adjunct to the teacher's perception of adjustment in this population.

The success of the above programme suggests that further research is required to evaluate the potential benefits of similar school-based psychological services. In the future, school-based services could establish links with secondary level mental health services for consultation, support, and the facilitation of referrals. There is an obvious lack of such services at the present, with support services and treatment opportunities for such children ranging from minimal to non-existent.

2.5 Cognitive Behaviour Therapy for PTSD in Children

PTSD has only been recognised in children during recent years. Research has found that many children respond to traumatic wartime events with PTSD and related symptoms (Kinzie et al. 1986; Saigh, 1991). Not all children exposed to trauma develop PTSD, however once PTSD is established in children it may become chronic and functionally

debilitating. It may also cause impairment in social or academic functioning (Giaconia et al., 1995). Children with PTSD are also at a higher risk of developing other difficulties. For these reasons effective interventions are clearly required.

Despite an increasing literature on the diagnosis and treatment of PTSD, there is little empirical research on individual and school-based prevention or intervention programmes for chronic PTSD in young people (Richters, 1993). Effective treatments, which are easily transferrable to different settings, are yet to be developed and empirically validated. For PTSD, as for other types of anxiety disorders, cognitive-behavioual therapy (CBT) may be the treatment of choice (Foa & Meadows, 1997). A number of studies have been found to provide support for the efficacy of CBT for children with PTSD.

Deblinger, McCleer, and Henry (1990) carried out an uncontrolled trial to evaluate a 12 session CBT programme for sexually abused and traumatised children. Participants consisted of 19 girls between the ages of 3 and 16. The 12 session programme included an introduction (2 sessions), modelling and coping skills training (2 sessions), graded exposure (6 sessions), and education and prevention skills training (2 sessions). Skills training and behavioural management advice were also provided to non-offending caretakers in a similar 12 session format. At post-treatment PTSD symptoms had improved and although some children remained symptomatic, none met diagnostic criteria for PTSD. Measures of child behaviour, depression, and anxiety were also administered before and after treatment. A significant improvement was found on all measures at post-treatment.

Saigh (1987a,b, 1989a) has also demonstrated the effectiveness of prolonged imaginal exposure for children affected by war in a series of single case, multiple-baseline studies for

children with PTSD arising from interpersonal violence and war. In another study Saigh has shown that CBT is an effective treatment for single-incident trauma in young people (Saigh, 1992).

Although controlled treatment outcome studies for childhood PTSD remain scarce, those that have been conducted suggest that CBT is an effective intervention. To date there have been only four controlled studies using CBT for post-traumatic stress symptoms in children (Berliner & Saunders, 1996; Deblinger, Lippman, & Steer, 1996; Cohen & Mannarino, 1996, 1998; Goenjian et al., 1997). Three out of these four trials were conducted with children who had been sexually abused. None were carried out with refugee or asylum seeking children.

In the study by Berliner and Saunders (1996), 80 sexually abused children were randomly allocated to either a traditional treatment group that used discussion, activities or games to address issues of abuse or to a CBT group which used similar techniques plus relaxation, cognitive restructuring, and graded exposure. Marked improvements were found at the end of treatment in both groups on parent and child measures. There was no significant differences between the two groups.

Another study involving sexually abused children conducted by Deblinger, Lippman, and Steer (1996) found that individual CBT or joint parent/child CBT was superior to a community treatment control group in reducing PTSD symptoms. In this study 100 sexually abused children were randomly assigned to either a community treatment control group or one of three trauma-focused CBT conditions, individual treatment, joint parent/child treatment or treatment through the parent only. It is interesting to note that the joint

parent/child CBT produced significantly more improvement in depressive and externalising symptoms.

Two controlled trials conducted by Cohen and Mannarino (1996, 1998) have also demonstrated the effectiveness of CBT. In the first study they randomly assigned 86 sexually abused preschoolers to either a trauma-focused CBT intervention for both child and parent or to a non-directive supportive therapy for the preschooler alone. The CBT condition was markedly superior to the non-directive therapy. Improvements made in the CBT group were also maintained at 6 and 12 month follow-ups (Cohen & Mannarino, 1996). They conducted a subsequent randomised trial in which CBT was again proven superior to non-directive supportive therapy (Cohen & Mannarino, 1998).

Following the Armenian earthquake, Goenjian et al. (1997) conducted a study which compared CBT to no treatment for traumatised children. The school-based CBT intervention consisted of group discussion about the trauma, relaxation and desensitisation, grief work, and normalisation of responses. This intervention was provided within two out of the four schools near the earthquake epicentre. Children in the other two schools were not treated. The school-based group intervention was found to be more effective than no treatment in eliciting improvements in self-report measures of PTSD and distress.

2.6 Theoretical Background to CBT

The term 'CBT package' frequently refers to a psychological intervention consisting of diverse components, which range from problem-solving strategies to behaviourally based exposure methods or specific cognitive techniques aimed at modifying distorted thinking. Cognitive-behavioural interventions are based on learning theory and information processing

theories (Smith, Perrin, & Yule, 1999). According to learning theory, changes in behaviour may be brought about by influencing antecedents and consequences. On the other hand, information processing theory holds that cognitions drive behaviour and therefore altering cognitions can lead to changes in behaviour, as well as in affect. Cognitive-behavioural work with children generally draws on both theories by relying on the application of behavioural techniques, as well as considering the cognitive interpretations and attributions about events made by children.

2.7 Group Treatment for Children

Where natural groupings of traumatised individuals already exist in communities or schools, group treatment becomes a practical way of helping large numbers of individuals at once. Therapeutic groups also provide special opportunities in that they may decrease the sense of hopelessness and loneliness. They may also normalise children's reactions. Group CBT has previously been described for children who survived an earthquake (Galante & Foa, 1986) and a shipping disaster (Yule & Williams, 1990). Both of these groups encouraged the sharing of feelings and experiences between group members, increased the children's sense of coping and mastery, and collectively solved common problems. However, these two treatment programmes differed in certain ways. For instance, Galante and Foa applied a relatively structured approach with each session following a clearly stated objective and activity. Yule and Williams (1990) chose to use a less structured approach, which offered separate group sessions for both children and parents who had survived the disaster.

Gillis (1993) also conducted a group intervention with children following a school sniper attack. These group sessions involved a combination of both structured and open-ended components. Gillis concluded that it was best to run separate groups for boys and girls

because of the different reactions they displayed following the attack. Boys demonstrated more externalizing problems, while girls showed more internalizing ones. It was also suggested that 6 to 8 children was an optimal group size.

Very few group treatment outcome studies have been conducted for children with PTSD. In the study conducted by Galante and Foa (1986) structured group therapy was found to produce significant teacher-rated improvements compared to no-treatment controls. Yule (1992) found that children who attended group debriefing meetings did better on a range of outcome measures than children who were not offered such help. Additional evidence comes from Stallard and Law's (1993) uncontrolled trial of crisis debriefing, which showed significant improvements on standardised self-report measures in a small group of young children involved in a road traffic accident.

March, Amaya-Jackson, Murray, and Schulte (1998) conducted an uncontrolled trial of an 18 session cognitive behavioural group treatment for 14 children with PTSD who had suffered a single incident trauma. Results were promising with 8 of the 14 subjects (57%) free of PTSD symptoms at the end of treatment and another 4 free of PTSD at 6 month follow-up, resulting in an overall recovery rate of 86%. Findings from these studies suggest that group therapy has a beneficial effect on children. However, further studies are necessary.

2.8 Development of a manual-based group CBT Intervention

In an attempt to meet the large scale needs of traumatised children and adolescents, particularly after war, international relief agencies have sponsored the development of booklets, which assist teachers and others in recognising PTSD symptoms and providing

initial treatment. Such manuals have been written following conflicts in Mozambique (Raundalen, Dyregrov, & Bugge, 1990; Richman, 1991), Lebanon (Macksound, 1993), and Sri Lanka (Nikapota & Samarasinghe, 1993).

Although humanitarian organisations have set up treatment programmes in war-affected countries for adults with PTSD, few programmes have been established for children. There is now a need to disseminate knowledge and train individuals who are interested in working in this neglected area. Due to language barriers, time constraints, and limited resources, the long-term involvement of trained mental health professionals from Western countries is often impractical. Therefore, it would be ideal if effective intervention techniques could be made accessible to people already working within these war-affected countries. Local individuals would then be in a position to offer psychological assistance to traumatised children.

A manual-based group intervention has been developed in an attempt to meet this growing need. The 'Children and War: Teaching Survival Techniques' manual (Smith et al., 2000) offers a systematic cognitive-behavioural approach to the treatment of PTSD in children. Similar cognitive-behavioural interventions have already been shown to be an effective treatment for PTSD sufferers (March et al., 1998). This novel approach is an attempt to provide adults, who are not necessarily trained mental health professionals, with the knowledge and skills necessary to conduct effective group interventions. To date this manual has been successfully implemented in several countries following natural disasters (Greece and Turkey). However, the present investigation is the first controlled study to evaluate the effectiveness of the intervention when used with children suffering from war-related trauma.

2.9 Main Content of Sessions

The 'Children and War: Teaching Survival Techniques' manual-based group intervention is a psycho-social-educational programme. It was designed to be delivered by people with little experience, under the supervision of an individual with mental health expertise. The main purpose of the intervention is to educate children about the symptoms of PTSD and to teach them appropriate coping strategies. The core symptoms of PTSD (intrusion, arousal, and avoidance) are addressed within the sessions.

The sessions consist of a mixture of educational work and interactive practical group activities. At the start of each session, children complete various warm-up exercises. During the sessions children are encouraged to adopt a problem-solving and group-sharing approach to the difficulties. In the sessions which focused on intrusive symptoms, children discuss the ways in which traumatic reminders upset them. They practice various imagery techniques, which give them more control over their troubling intrusive images. The children are also introduced to distraction techniques, dual attention techniques (similar to some EMDR techniques), and information on how to manage frightening, repetitive dreams. To reduce arousal, they first learn to identify their reactions and then practice relaxing at will, by using their own techniques as well as breathing and progressive muscle relaxation exercises. The children are taught to schedule pleasurable activities for themselves, to improve their sleep hygiene, and to develop and practice coping self-statements. Other sessions address symptoms of avoidance. The group members are introduced to the concept of graded exposure, then given a short practice session in imaginal exposure followed by self-reinforcement. They are encouraged to draw, write, and talk about upsetting wartime events. In addition, they are encouraged to look to the future rather than the past.

The manual-based intervention also includes parallel group sessions for the children's parents or legal guardians. These adult sessions aim to normalise the children's reactions and improve their recovery environment. The sessions are also an opportunity to give advice to parents or guardians on self-help strategies and to provide information about the techniques which the children will be learning within their group sessions.

Chapter 3: FEASIBILITY STUDY

3.1 Aim of the Feasibility Study

An uncontrolled study was conducted to test the effectiveness and feasibility of implementing this manual-based CBT group intervention within a British primary school.

3.2 Setting

The primary school was situated in south London and had 440 full-time students enrolled. It admits boys and girls, aged 5 through 11. Students come from the local area. Approximately 75 students were from refugee or asylum seeking families, according to school records. The majority had arrived in the UK from Sierra Leone, Columbia, and Somalia. These children arrived in the UK and entered the classroom speaking little English. Altogether 32 different languages were spoken within the school and approximately half of the children had a first language other than English. The school was proud of its multicultural student body and encouraged its students to appreciate diversity. Group sessions took place in a small classroom used by the Ethnic Minority Achievement Group (EMAG) teacher.

3.3 Participants

The school's EMAG teacher identified 7 refugee and asylum seeking students who had experienced traumatic events of a violent nature in their former countries. The teacher selected children who had experienced particularly traumatic incidents and were currently displaying anxious or withdrawn behaviour within the classroom. It was the opinion of school staff that these children required and would benefit from some form of psychological help. All of the children were able to comprehend and speak English. Although one Spanish

speaking child had limited English, another child in the group who was fluent in both Spanish and English was able to act as an interpreter. The group consisted of 4 boys and 3 girls, ranging in age between 6 and 11. The children were originally from Kosovo (n=2), Columbia (n=2), and Sierra Leone (n=3). Further demographic details are presented in Table 1.

Table 1. Demographic characteristics of the 7 children referred to the feasibility study

Student	Gender	Age in years	Country of Origin	Date of UK School Entry	Native Language
1	Male	6	Kosovo	September 1998	Albanian
2	Male	7	Kosovo	September 1998	Albanian
3	Male	7	Columbia	October 1999	Spanish
4	Male	7	Columbia	September 1997	Spanish
5	Female	7	Sierra Leone	February 2000	Krio
6	Female	8	Sierra Leone	January 2000	Krio
7	Female	11	Sierra Leone	January 2000	Krio

3.4 Procedure

Informed consent was obtained from the children's parents. The school's mental health worker then interviewed the parents in order to gather more information about the family's past experiences and their child's present difficulties. The children were also assessed prior to and following the group intervention using the Birleson Depression Self-rating Scale and the teacher-rated version of the Strengths and Difficulties Questionnaire.

The manual-based CBT group intervention consisted of one weekly hour-long session, which took place over a period of six weeks. The school's EMAG teacher and a clinical psychology trainee acted as group co-leaders. Three parallel group sessions were also planned for the children's parents but only one was carried out due to language interpretation difficulties.

The school's mental health worker and educational psychologist conducted the parents' session.

3.5 Adaptations to Session Content

The content of the sessions was adapted to suit the vocabulary and attention spans of these young children. Visual materials, such as war-related photographs taken from newspapers, were used to assist the children in expressing and comprehending many of the topics discussed during the group sessions. PTSD symptoms were depicted through a life-size drawing called 'Mr. Scary Thoughts'. At the end of the first two sessions, children attached pictures they had drawn of their nightmares or upsetting events they had witnessed, eg. the amputations carried out by rebel soldiers in Sierra Leone, onto 'Mr. Scary Thoughts'. Children were encouraged to fight against 'Mr. Scary Thoughts' by making another life-size drawing called 'Mr. Nice Dreams' grow more powerful. At every session new coping strategies were learned and a visual representation was then attached to 'Mr. Nice Dreams'. For example, after a session focusing on progressive relaxation exercises, a picture of a child doing these exercises was added to 'Mr. Nice Dreams'. 'Mr. Scary Thoughts' was taken away at the final session while 'Mr. Nice Dreams' remained covered with pictures of various coping strategies and other positive images, such as the children's pictures of what they wished to be in the future. It was hoped that the portrayal of PTSD symptoms and coping strategies through such media would compliment the children's learning in a way which was concrete, as well as fun.

3.6 Measures

Severity of depressed mood was assessed using the Birleson Depression Self-rating Scale (DSRS; Birleson, 1981). Behavioural symptoms, including emotional, conduct, hyperactivity/inattention, and peer difficulties, as well as prosocial behaviour, were assessed with the teacher rated version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1994).

3.7 Preliminary Findings

Effectiveness of the Group Intervention

A preliminary analysis was conducted in order to determine whether any trends were apparent. Self-report depression scores pre and post-treatment are presented in Table 2. Measures of observed behaviour are shown in Table 3. Paired t-tests were performed on the pre to post scores for each of these variables and are listed in Table 4. Due to the small sample size, no significant differences emerged post-treatment. However, non-significant trends were apparent, including a trend towards a decrease in total depression score ($t(4)=2.369$, $p=0.077$) and a nearly significant trend towards a decrease in hyperactivity/inattention ($t(4)=2.764$, $p=0.051$). A non-significant trend towards an increase in prosocial behaviour ($t(4)=-2.426$, $p=0.072$) was also detected.

Table 2. Individual pre and post scores on the Birleson Depression Self-Rating Scale

Student (n=7)	Total Depression score	
	Pre	Post
1	11	9
2	10	7
3	---	14
4	14	7
5	12	6
6	9	10
7	9	---

Table 3. Individual pre and post scores on the Strengths and Difficulties Questionnaire

Student (n=6)	Total Difficulties		Emotional symptoms		Peer problems		Conduct problems		Hyperactivity/ inattention		Prosocial behaviour	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	14	20	2	2	3	4	1	6	8	8	4	2
2	17	3	3	0	2	0	3	1	9	2	2	7
3	15	7	4	2	3	2	2	0	6	3	5	9
*4	9	5	1	0	2	0	1	2	5	3	6	10
5	14	5	0	1	4	3	5	0	5	1	4	9
6	---	6	---	0	---	3	---	3	---	3	---	10
7	---	---	---	---	---	---	---	---	---	---	---	---

* Pre and post questionnaires were completed by the same teacher.

Table 4. Results from the statistical analyses

Measure (n=5)	Pre-intervention Mean (SD)	Post-intervention Mean (SD)	t value	Significance
Birleson (DSRS)	11.2 (1.92)	7.8 (1.64)	2.369	0.077
SDQ Total Difficulties	13.8 (2.95)	8.0 (6.86)	1.730	0.159
Emotional symptoms	2.0 (1.58)	1.0 (1.00)	1.414	0.230
Peer problems	2.8 (0.84)	1.8 (1.79)	1.826	0.142
Conduct problems	2.4 (1.67)	1.8 (2.49)	0.355	0.741
Hyperactivity/ Inattention	6.6 (1.82)	3.4 (2.70)	2.764	0.051
Prosocial behaviour	4.2 (1.48)	7.4 (3.21)	-2.426	0.072

Feasibility of a School-based Group Intervention

Implementation of the manual-based group CBT intervention was found to be feasible. A total of 6 sessions were organised and conducted within the primary school. Attendance rates were extremely high. There was 100% attendance at all sessions except one, which a child missed due to illness. Children looked forward to the groups and frequently asked the EMAG teacher when their next session would take place. Four members of school staff were actively involved in organising and conducting the groups. They viewed the intervention as important to the healthy development and future academic achievement of their students. At the intervention's conclusion, the Head Teacher commented that she hoped the school would have the funding and personnel necessary to continue to offer students from war-affected countries this service.

The intervention also elicited a positive response from the children's parents. After receiving information about the purpose and content of the group sessions, all of the parents gave permission for their children to take part. The school's mental health worker met with parents of all the referred children prior to the intervention. This meeting proved helpful as it allowed the parents to share information about their children's past traumatic experiences and current difficulties. Parents also learned about the topics which were to be covered in the school-based intervention. Although three parallel group sessions for the parents had been initially planned, only one was conducted. The adult group was found difficult to carry out mainly because the parents had such limited English. One session was attempted but could not be conducted in a group format as the three adults who were present each spoke different languages and were not accompanied by anyone who could act as an interpreter. Therefore, the group leaders found it easiest to speak individually with each parent and relied on school students to act as interpreters. Additional group sessions were not attempted as

they would have required three different interpreters (for Spanish, Albanian, and Krio speaking parents) and therefore would have resulted in a loud, chaotic environment. Although further adult group sessions were not thought to be feasible, it was felt that the parents had already received adequate information (regarding the group intervention and strategies to help their children at home) during their initial meeting with the school's mental health worker and the first parents' group session.

3.8 Limitations

The lack of a control group reduces the study's ability to demonstrate that improvements were due to the effectiveness of the intervention rather than the passage of time. Another weakness was the small sample size. Ideally, several different groups of students would have completed the intervention so that findings could be based on a larger number of participants. The inclusion of standardised PTSD and anxiety self-report measures would also have been preferable. Information regarding PTSD symptoms obtained from the Revised Impact of Event Scale (R-IES; Dyregrov & Yule, 1995) would have proven particularly useful. However, due to the children's limited knowledge of English vocabulary and their young age (five of the children were under 8 years old which is below the age group for which the R-IES has been standardised) the measure could not be administered. All of the students required some assistance when completing the depression scale. One student had such limited English that he was unable to complete this pre-intervention measure.

In addition, as the final group session coincided with the end of summer term there was a delay in collecting post-intervention measures. Therefore, a number of weeks had passed before the children again completed the depression scale. Also, the behaviour rating scales

were completed by different teachers for the majority of the children since they had changed class teachers at the start of the new academic year and it was important that a teacher familiar with their current behaviour completed the ratings. Although these figures give us some degree of post-intervention data, it would have been better if they had been completed immediately after the group intervention and if symptoms of PTSD had also been measured.

3.9 Conclusions

In spite of the limitations described above, the feasibility study demonstrated promising trends towards a decrease in depressed mood and behavioural difficulties, particularly in view of the small number of participants. The difficulties encountered allowed for enhancements to the design and procedure of the main study. For instance, it became apparent that conducting a parents' group with non-English speaking adults from a variety of different countries who therefore required separate interpreters, was not a realistic undertaking. It was decided that in the future sessions should be organised for groups of adults who spoke the same language and were of a similar ethnic background so that only one interpreter was necessary. Although the children who participated in the group sessions had also come from different countries, this did not create any problems since all the children understood and spoke English. However, it did seem likely that a group consisting entirely of children from the same country and ethnic background might respond particularly well to the intervention as they were more likely to have experienced upsetting events of a similar nature. Having such experiences in common might make it easier for them to talk about what had happened and to offer one another support. The study's participants ranged greatly in age, with the youngest child aged 6 and the eldest aged 11. Neither the range in age nor the mixture of boys and girls within the group appeared to cause any difficulties. In fact the eldest child often volunteered to help the co-leaders and younger children during

group activities, which proved extremely useful at times. The study also found that two co-leaders were capable of managing a group of seven young children.

The interest shown in the project by the children's parents was due in large part to the efforts of the school's Head Teacher, who personally invited the parents to attend the initial meeting with the mental health worker. It is also important to recognise that the school had already established a close and trusting relationship with these children's parents. The school was providing the parents with a number of useful services, including evening adult English classes and the translation of all school letters before they were sent home with the children. Therefore, while this pilot study demonstrated the feasibility and effectiveness of a school-based group intervention, much of the intervention's success was related to the enthusiastic and committed involvement of school staff.

Chapter 4: MAIN STUDY

4.1 Aim of the main study

A larger, more sophisticated controlled study was conducted to test the effectiveness of this manual-based group CBT intervention when implemented within British secondary schools for children from war-affected countries who have experienced trauma.

4.2 Hypotheses

(1) The CBT intervention will result in an improvement in the children's psychological functioning with decreased PTSD symptoms, depression, and anxiety.

(2) The CBT intervention will result in an improvement in the children's behaviour with decreased emotional, peer, conduct, hyperactivity/inattention, and total difficulties, as well as increased prosocial behaviour.

(3) The treatment group will demonstrate improvements in psychological functioning and behaviour following the intervention, whereas the control group will not show such improvements following the elapse of an identical but intervention-free time period.

4.3 Setting

Two secondary schools participated in the study, one in south London and the other in north London. Both were state-funded, co-educational, comprehensive schools. The south London school had over 1,000 students enrolled, 871 (79.2%) were ethnic minority students. English was an additional language for 416 (37.8%) of the students. Approximately ninety-

eight children (8.9% of all students) were asylum seekers or refugees, according to school records. Many had fled from war and persecution in countries as diverse as Afghanistan, Angola, Sierra Leone, and Kosovo. At the north London school there were 873 students enrolled. English was an additional language for nearly 550 (63%) of the students. The school reported that approximately 200 (23%) of the children were asylum seekers or had refugee status. The majority of the asylum seekers or refugee students were Kurdish children from Turkey, as well as children from Kosovo and Sierra Leone. At both schools group sessions were held within small classrooms used by the Ethnic Minority Achievement Group (EMAG) teachers.

4.4 Participants

Twenty-six children were identified by their school's EMAG teachers as being appropriate for the study. The children were refugees or asylum seekers from war-affected countries who had been exposed to traumatic events. These 26 children were chosen because they had been exposed to particularly traumatic experiences and their teachers thought that they were experiencing psychological or behavioural difficulties as a result. Therefore, the EMAG teachers judged these children to be in need of psychological help. Children with learning difficulties or those who had not yet learned to speak, read or comprehend conversational English were excluded. It was decided that strict inclusion criteria, such as high scores on screening or self-report measures, would not mimic the true practical application of this manual in real world scenarios, and therefore were not necessary.

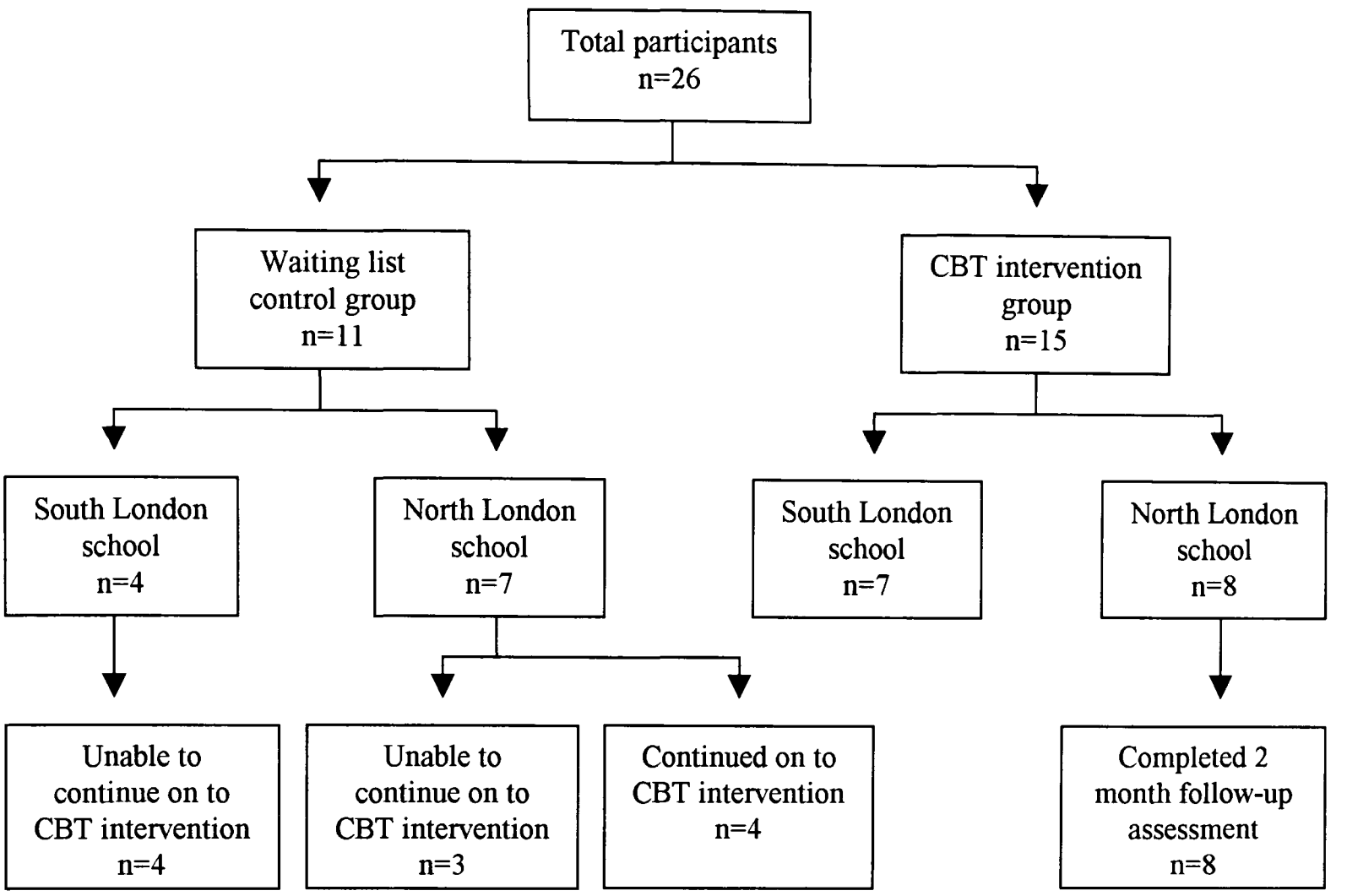

Figure 1. Study design

4.5 Design

A prospective longitudinal study was conducted to compare the outcome between a treatment group and a waiting list control group. The treatment group received six sessions of group CBT over a six week period. The control group were placed on a waiting list for six weeks and then invited to enter treatment. The dependent variables were measured twice: time 1 (baseline) and time 2 (post-treatment for the CBT group and end of the waiting period for the control group) to measure the efficacy of the CBT group intervention relative to the no-treatment control condition. Members from one of the 3 CBT groups conducted were assessed at a 2 month follow-up to measure the durability of therapeutic changes.

Treatment and control groups were referred from two London secondary schools. Figure 1 shows the number of children belonging to the treatment and control group at each of these schools. The main outcome measure was severity of PTSD symptoms, including intrusion, arousal, and avoidance. The secondary outcome measures were depression, anxiety, and functional behaviour, including overall behavioural difficulties, emotional symptoms, peer relationship problems, conduct problems, hyperactivity/inattention, and prosocial behaviour.

4.6 Procedure

The research proposal was reviewed and approved by the South London and Maudsley NHS Trust Ethical Committee (see Appendix I). EMAG teachers from two secondary schools in London were referred to the investigator (a clinical psychology trainee), having requested psychological help for students at their schools who had come from war-affected countries. The clinical psychology trainee arranged a brief educational meeting with the EMAG teachers at each school. At this meeting PTSD symptomatology in children, as well as the content and aims of the group intervention were discussed. The EMAG teachers then referred appropriate refugee or asylum seeking students to the study. Children identified as potential participants were invited to attend a short meeting in which the purpose and content of the group sessions were discussed. Informed consent was obtained from all children participating in the study, as well as their parents or legal guardians (see Appendix II).

In each school the children were divided into two separate groups of approximately equal numbers, with one group of children allocated to treatment and the other group to the waiting list control condition. Group allocation was based primarily on the student's availability. For instance, children with impending exams were placed in the waiting list

control group so that the group intervention did not have an adverse effect on their class attendance or revision time.

Assessments were conducted for both groups on two different occasions: time 1 (week 1) and time 2 (week 8) which was post-treatment for the CBT group and the end of the waiting period for the control group. Baseline assessments were conducted by the clinical psychology trainee and included a semi-structured interview using an adapted version of the War Trauma Questionnaire (see Appendix III) to collect demographic details and information regarding past traumatic experiences. At each assessment, the children completed self-report measures for PTSD symptoms, depression, and anxiety. In addition, each child's form teacher was asked to complete behaviour ratings. The control group did not receive any form of intervention during their 6 week waiting period. Following the assessment at time 2, the control group were given the opportunity to enter the treatment condition. Those who entered treatment were assessed post-treatment (week 15). In addition, members of one of the three CBT groups conducted completed a follow-up assessment (week 16) two months after their post-treatment assessment.

Children in the treatment group attended a weekly one hour group session. Sessions were held within the school during class time and occurred over a six week period. Groups consisted of up to eight children. The content of these sessions was based on the 'Children and War: Teaching Survival Techniques' manual. Each group session was conducted by the clinical psychology trainee. Two parallel group sessions for the children's parents or legal guardians were also initially planned. These sessions were to provide an opportunity for adults to discuss and learn about children's reactions to war, the content of the children's group sessions, as well as the importance of the children's homework exercises. Letters

from the school, which invited parents or legal guardians to attend these parallel sessions, were translated into the children's native languages before being sent home (see Appendix IV). Due to poor attendance at the first of these sessions (only one mother arrived) further groups were cancelled. Training and clinical supervision were provided prior to and throughout the intervention period by two of the clinical psychologists who had developed the manual.

4.7 Measures

All measures were administered in English. If a child had difficulty understanding any of the vocabulary another child was asked to translate.

Main Outcome Measure

(1) *Revised Impact of Event Scale* (R-IES; Dyregrov & Yule, 1995): 13 items

The R-IES is a 13-item scale designed to assess symptoms of PTSD in children. It is an adapted version of Horowitz, Wilner, & Alvarez's (1979) Impact of Event Scale. This self-report scale measures symptoms of intrusion, avoidance, and arousal. Items are scored 0, 1, 3 or 5 with a maximum possible score of 65. Higher scores indicate more symptoms. A score equal to or above 17 on the 8 items related to intrusion and arousal suggests that the child is likely to meet diagnostic criteria for PTSD (Dyregrov & Yule, 1995, Yule, 1998).

Secondary Outcome Measures

(1) *Birleson Depression Self-Rating Scale* (DSRS; Birleson, 1981)

The DSRS measures the level of depressive feelings reported by children and adolescents. This 18-item measure is scored on a 3-point scale. It has been found to have good internal consistency (Birleson, 1981). The scale is moderately efficient at discriminating between

depressed and non-depressed children with reported specificity of between 77% and 88% and sensitivity of between 64% and 67% among British children (Asarnow & Carlson, 1985; Birleson, Hudson, Buchanan, & Wolff, 1987).

(2) *Revised Children's Manifest Anxiety Scale* (RCMAS; Reynolds & Richmond, 1978)

This self-report measure assesses generalised non-specific anxiety in children. The scale has a total of 37 true/false items, of which 28 items measure anxiety and 9 lying or social conformity. There is good face validity for the items (James, Reynolds, & Dunbar, 1994). Reynolds (1980) reports a correlation of .85 with the a-Trait scale of the State Trait Anxiety Inventory for Children (Speilberger, Gorsuch, Luschene, Vagg, & Jacobs, 1983) which demonstrates good concurrent validity. The RCMAS has also shown good reliability and validity across various ethnic groups (Ferrando, 1994; Wilson, Chibaiwa, Majoni, Masukume, & Nkoma, 1990).

(3) *Strengths and Difficulties Questionnaire/Teacher Version* (SDQ; Goodman, 1994)

The SDQ is a brief behavioural screening questionnaire that can be completed by teachers of 4-16 year olds. It is a modified version of the Rutter Teacher Questionnaire (Rutter, 1967; Rutter, Tizard, & Whitmore, 1970). It consists of 25 items, which are divided into 5 scales to measure emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour. For the prosocial scale, Goodman (1994) reports Cronbach's alpha coefficient of .92.

(4) *War Trauma Questionnaire – revised version* (WTQ; Macksoud, 1992)

This questionnaire was originally developed by Macksoud for use in Lebanon but was later adapted for use throughout Bosnia-Hercegovina by UNICEF. It was again adapted for use

in this study. It includes 32 yes/no questions regarding events which the child may have experienced during the war. The total score (range 0-32) provides a useful indication of the child's level of exposure to trauma.

4.8 Statistical Analysis

Data summary and routine analyses were carried out using SPSS for Windows (Version 10.0). The majority of statistical tests were parametric. However, in cases where data were skewed, an equivalent non-parametric test was performed. Separate analyses of covariance were used to detect differences in the outcome measures between the CBT group at pre-treatment (time 1) to post-treatment (time 2) and the waiting list control group at pre-treatment (time 1 and 2). If statistical significance or trends were found then further investigation was carried out using paired t-tests. Paired t-tests were also used to evaluate the effectiveness of the CBT group intervention (by detecting differences between pre-treatment and post-treatment scores) and the durability of treatment (by detecting differences between pre-treatment and 2 month follow-up scores). For all tests, the significance level was set at the 5% level in order to reduce Type II errors.

Chapter 5: RESULTS

5.1 Baseline Data

Participants

Twenty-six children, who were refugees or asylum seekers from war-affected countries and had experienced traumatic events, took part in the study. The majority of children were from Kosovo (n=11) and Sierra Leone (n= 10). However children from Turkey (n=3), Afghanistan (n=1), and Somalia (n=1) also participated. Most were asylum seekers who had lived in the UK for approximately 2 years. Ages ranged from 11 to 15 years, with the mean age being 13 years. The children in the CBT group were younger than those in the control group ($t(24)=-2.695$, $p=0.013$), however there were no other significant differences between the two groups. Children in both groups had been exposed to similar levels of war-related trauma, as evident from their scores on the WTQ. There were more boys (n=17) than girls (n=9) in the study. Fifteen children (control group=7, CBT group=8) were students at a secondary school in north London and 11 were attending a school in south London (control group=4, CBT group=7). Further demographic details are shown in Table 5.

Wartime Experiences

As shown in Table 6, the children had experienced a wide range of traumatic events while living in their former war-affected countries. On the War Trauma Questionnaire (WTQ) participants had a mean score of 17 (s.d.=6), with scores ranging from 5 to 28. Such scores indicate that the children have been exposed to extremely high levels of trauma. Many of the losses suffered were severe. For example, 37% of the children reported that at least one of their parents had been killed in the war. Also, during the war more than half of the children

had seen dead bodies, witnessed someone being killed or severely injured, had a close personal friend who was killed, or strongly believed that they themselves would be injured or killed. Other common experiences (reported by more than 80% of the children) included being forced by violence or threat of violence to leave home, having their home seriously damaged by shelling or fire, seeing someone being taken prisoner by soldiers, seeing someone who was severely injured, or having family or close friends injured.

Table 5. Demographic characteristics of the 26 children referred to the main study

	Control group (n=11)	**CBT group** (n=15)	**Significance**
Mean age /years (s.d.)	13.46 (1.13)	12.47 (0.74)	**
Mean length of time in UK /years (s.d.)	1.91 (0.92)	2.10 (1.15)	NS
Gender			NS
Male	7	10	
Female	4	5	
Country of Origin			NS
Kosovo (Albanian)	4	7	
Sierra Leone	3	7	
Turkey (Kurdish)	2	1	
Afghanistan	1	0	
Somalia	1	0	
Legal Status			NS
Asylum seeker	9	15	
Refugee	2	0	
Arrived as Unaccompanied Children	4	2	
Native Language			
Albanian	4	7	
Krio	3	7	
Kurdish	2	1	
Farsi	1	0	
Somali	1	0	
Religion			
Muslim	10	7	
Christian	1	7	
None declared	0	1	

NS=not significant; **$p \leq 0.05$
Significance levels for mean age and length of time in UK were determined using independent t-tests.
Fisher's Exact Test was used to determine significance levels for gender, ethnic background, and legal status.

Table 6. Traumatic wartime experiences reported by the 26 children on the War Trauma Questionnaire

Wartime Experiences	**% YES** (Number)
Separations	
From both parents	14.8 (4)
From either parent	44.4 (12)
Home and Possessions	
Home was seriously damaged (shelled or burned)	81.5 (22)
Forced by violence or threat of violence to leave home	92.6 (25)
Things were stolen from home	81.5 (22)
Money or things were stolen from the family as they fled the country	18.5 (5)
Threat and Harm to Loved Ones	
A family member/close friend was missing or unaccounted for	37.0 (10)
A family member/close friend was threatened with violence or death	81.5 (22)
Family or close friends were hurt	88.9 (24)
Family member was taken to a prison or camp	11.1 (3)
A loved one was tortured	37.0 (10)
Direct Physical Contact with Danger	
Fear of death due to hunger	37.0 (10)
Fear of death due to cold	22.2 (6)
Physically assaulted	7.4 (2)
Witnessing Violence	
Saw massive destruction of property (bridges/buildings burned/shelled)	70.4 (19)
Saw shelling or bombing from a very close distance	37.0 (10)
Saw shooting from a very close distance	51.9 (14)
Saw looting, burglary or serious vandalism of property	74.1 (20)
Saw someone who was severely injured	81.5 (22)
Saw dead bodies	77.8 (21)
Saw someone being killed or severely injured	63.0 (17)
Saw many people being killed at once (a massacre)	22.2 (6)
Saw someone being taken prisoner by soldiers	81.5 (22)
Physical Threat	
A grenade or bomb landed so close that it could have caused injury or death	14.8 (4)
Soldiers or men with guns came to the house	81.5 (22)
Personally threatened with death or serious harm	14.8 (4)
Strongly believed that you would be seriously hurt or killed	77.8 (21)
Losses	
Father was killed in the war	25.9 (7)
Mother was killed in the war	11.1 (3)
Brother or sister was killed in the war	14.8 (4)
A close member of the extended family was killed in the war	51.9 (14)
A close personal friend was killed in the war	55.6 (15)

Clinical Demographics

Clinical data for the participants are presented in Table 7. There were no significant differences between groups on baseline symptom and screening measures. Although the R-IES is not a diagnostic measure, it is thought that individuals obtaining a combined score on the intrusion and arousal subscales ≥17 are likely to meet diagnostic criteria for PTSD (Yule, 1998). At baseline assessment, 92.3% of the children (n=24), 100% in the control group (n=11) and 86.7% in the CBT group (n=13), exceeded this cut-off for likely diagnosis. More than sixty percent of the children (n=16) had depression scores above the normal range (scores > 11, Yule, 1998). Fifteen percent (n=4) had scores similar to those found in children with clinically diagnosed depression (scores > 17, Yule, 1998). The children's self-reported anxiety levels were raised with the mean score being 16.58 (s.d.=6.83), which is slightly higher than American normative data (mean score=13.84, s.d.=5.79, Reynolds & Richmond, 1978). Teachers completed SDQs for 7 children in the control group and 12 in the CBT group. Likely cases as determined by the SDQ included children whose scores fell within the borderline and abnormal range. Eight children reached a level of 'caseness' on either total behavioural difficulties or at least one of the subscales, with the most frequent areas of difficulty being low levels of prosocial behaviour, peer problems, and hyperactivity/inattention.

Table 7. Baseline scores on symptom and screening measures for the control and CBT group

Measure	Control group (n=11)		CBT group (n=15)		Sig.
	Mean	SD	Mean	SD	
WTQ	**15.18**	**5.38**	**17.53**	**6.63**	**NS**
R-IES Total	**38.55**	**8.37**	**39.80**	**8.40**	**NS**
Intrusion	12.36	3.78	13.53	3.25	NS
Avoidance	13.91	4.95	14.60	3.40	NS
Arousal	12.27	2.20	11.80	5.69	NS
DSRS Total	**12.00**	**5.37**	**12.33**	**4.70**	**NS**
RCMAS Total	**16.18**	**6.57**	**16.87**	**7.22**	**NS**
SDQ Total Difficulties	**6.43 (n=7)**	**4.69**	**8.67 (n=12)**	**7.18**	**NS**
Emotional symptoms	2.14	1.35	2.00	1.86	NS
Peer relationship problems	2.00	1.92	2.67	1.78	NS
Conduct problems	0.14	0.38	1.17	2.37	NS
Hyperactivity/inattention	2.14	3.63	2.83	2.73	NS
Prosocial behaviour	7.43	2.30	6.75	2.38	NS

WTQ=War Trauma Questionnaire; R-IES=Revised Impact of Event Scale; DSRS=Depression Self-Rating Scale; RCMAS=Revised Children's Manifest Anxiety Scale; SDQ=Strengths and Difficulties Questionnaire
NS=not significant
Significance levels were determined using independent t-tests for all variables, the only exception being the use of the Mann-Whitney Test for the SDQ.

5.2 Analyses of Post-treatment Data

Post-treatment effects were analysed using separate analyses of covariance to detect differences between the two groups over assessment time 1 (baseline) and time 2 (post-treatment for the CBT group and the end of the waiting period for the control group). The symptom score at time 2 was the dependent variable, symptom score at time 1 acted as the covariate, and group was the fixed factor. This was chosen as the most sensitive test for measuring differences between the two groups at time 2. Non-parametric tests were used to analyse the SDQ data, as the scores were not normally distributed. Results are shown graphically for the main outcome measure (i.e. R-IES) on Figure 2a-d and for the secondary outcome measures (i.e. DSRS, RCMAS, & SDQ) on Figure 3a-c.

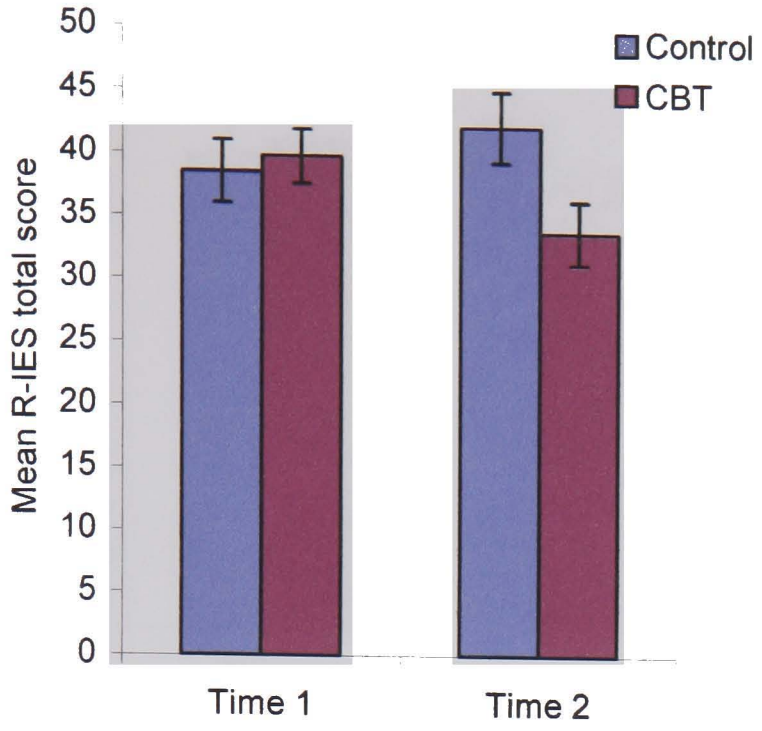

Figure 2a. R-IES total score

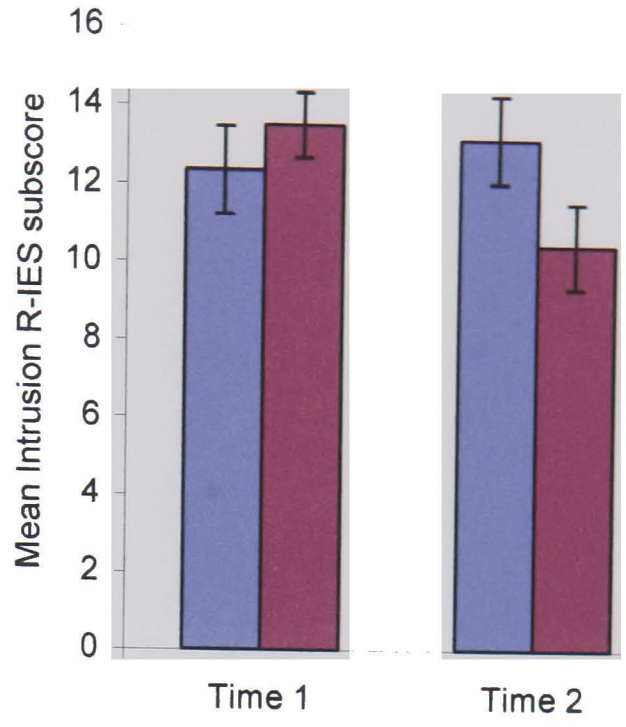

Figure 2b. Intrusion subscore

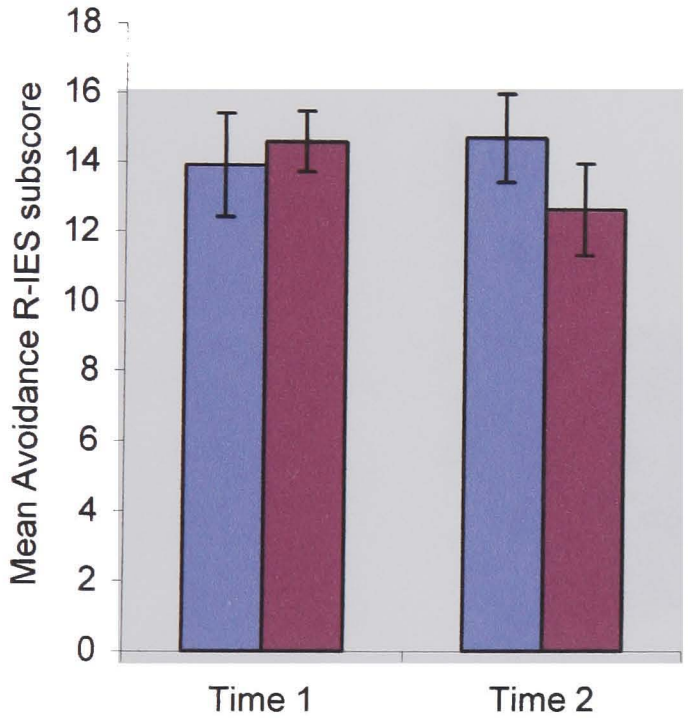

Figure 2c. Avoidance subscore

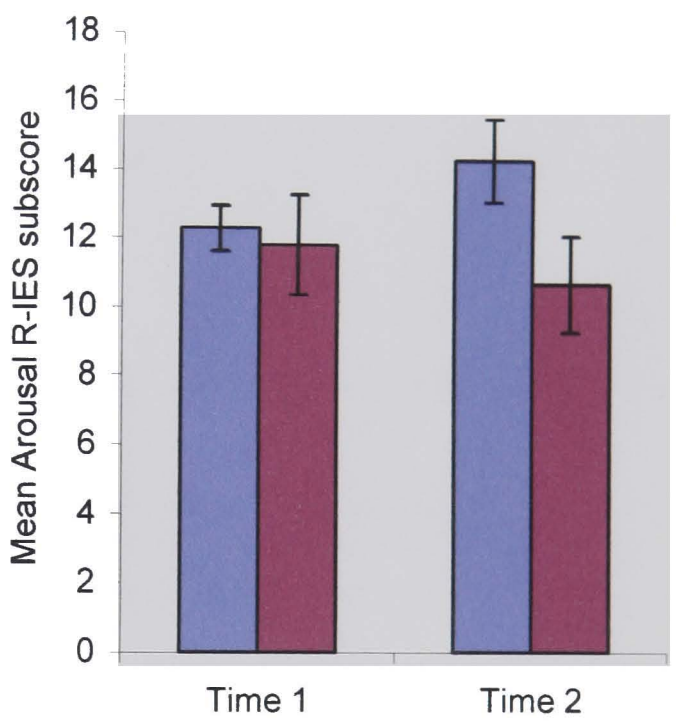

Figure 2d. Arousal subscore

Figure 2 a–d. Pre-treatment (time 1) to post-treatment (time 2) PTSD symptom scores for the CBT group compared with the waiting list control group at pre-treatment (time 1 and 2) for the R-IES total score and subscores. Error bars denote standard error of the mean.

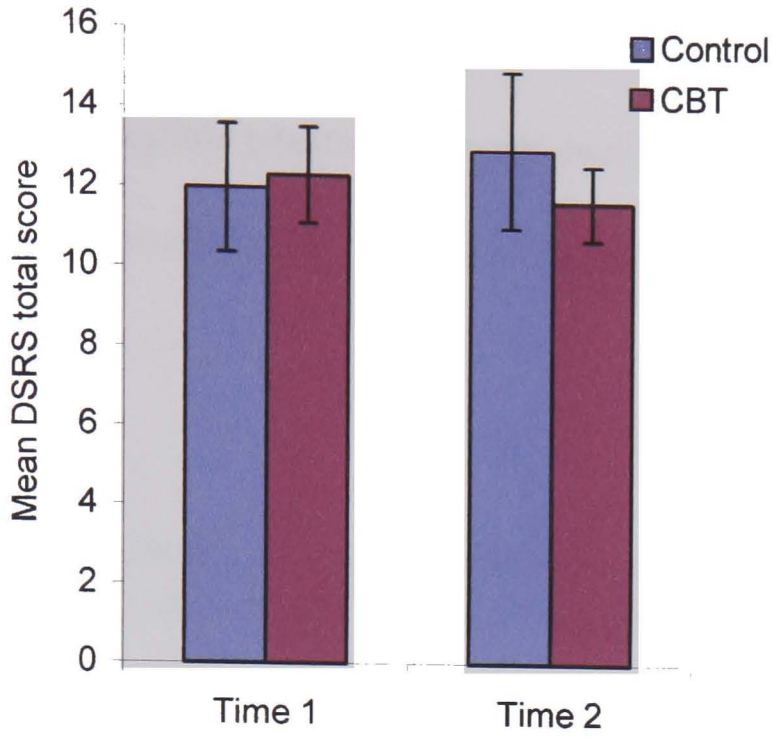

Figure 3a. DSRS total score for depression

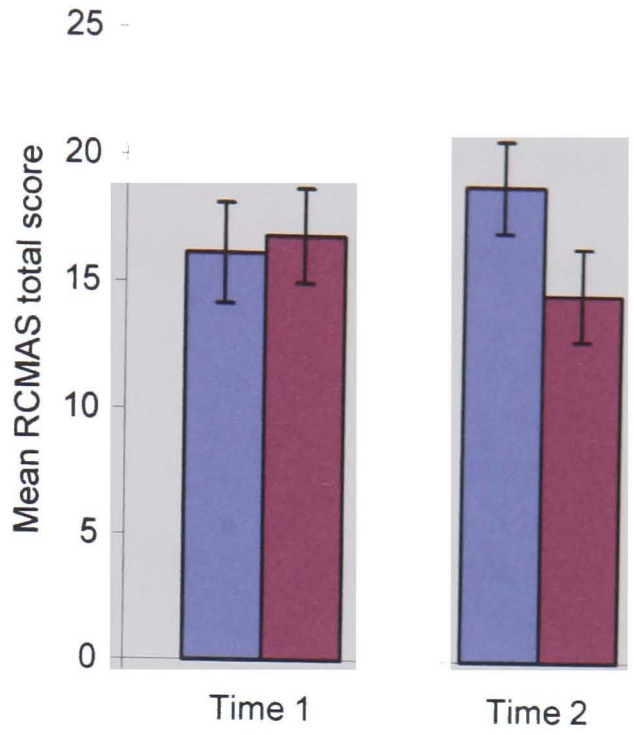

Figure 3b. RCMAS total score for anxiety

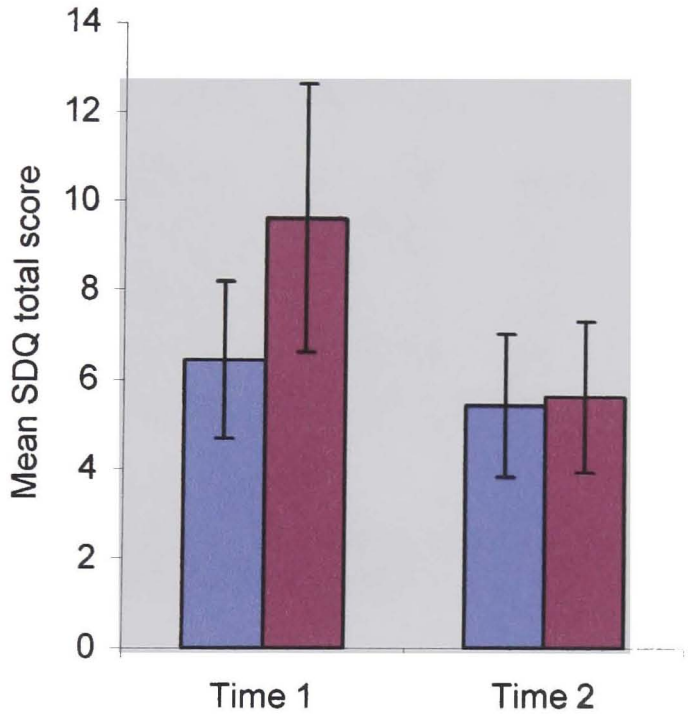

Figure 3c. SDQ total score for behavioural difficulties

Figure 3 a–c. Pre-treatment (time 1) to post-treatment (time 2) symptom scores for the CBT group compared with the control group at pre-treatment (time 1 and 2) for the DSRS, RCMAS, and SDQ total scores.

Significant differences in the main outcome measures were further investigated with appropriate t-tests or non-parametric statistics to examine the change in scores for each group separately. The results of these analyses are shown in Table 8 and discussed below.

Table 8. Pre-treatment (time 1) to post-treatment (time 2) symptom scores for the CBT group and waiting list control group at pre-treatment (time 1 and 2)

Measure	Control Group (n=11) Time 1 Mean (SD)	Control Group (n=11) Time 2 Mean (SD)	Sig.	CBT Group (n=15) Time 1 Mean (SD)	CBT Group (n=15) Time 2 Mean (SD)	Sig.
R-IES Total	**38.55 (8.37)**	**42.18 (9.38)**	**NS**	**39.80 (8.40)**	**33.80 (9.71)**	**
Intrusion	12.36 (3.78)	13.18 (3.71)	NS	13.53 (3.25)	10.47 (4.26)	**
Avoidance	13.91 (4.95)	14.73 (4.25)	NS	14.60 (3.40)	12.67 (5.14)	NS
Arousal	12.27 (2.20)	14.27 (4.03)	NS	11.80 (5.69)	10.67 (5.43)	NS
DSRS Total	**12.00 (5.37)**	**13.00 (6.57)**	**NS**	**12.33 (4.70)**	**11.67 (3.62)**	**NS**
RCMAS Total	**16.18 (6.57)**	**18.91 (6.04)**	**NS**	**16.87 (7.22)**	**14.67 (7.12)**	**NS**
SDQ Total Difficulties	**6.43 (4.69)**	**5.43 (4.28)**	**NS (n=7)**	**9.63 (8.54)**	**5.63 (4.84)**	*** (n=8)**
Emotional symptoms	2.14 (1.35)	1.14 (0.90)	NS	2.25 (2.25)	1.00 (1.31)	*
Peer relationship problems	2.00 (1.92)	1.57 (1.72)	NS	3.13 (1.81)	2.00 (1.60)	NS
Conduct problems	0.14 (0.38)	0.43 (0.79)	NS	1.75 (2.77)	1.13 (2.03)	NS
Hyperactivity/ inattention	2.14 (3.63)	2.29 (3.50)	NS	2.50 (3.12)	1.50 (1.60)	NS
Prosocial behaviour	7.43 (2.30)	6.86 (2.12)	NS	7.13 (2.80)	7.25 (3.01)	NS

NS=not significant; *$p \leq 0.05$; **$p \leq 0.01$
Significance levels were determined using paired t-tests for all variables, the only exception being that the Wilcoxon Signed Ranks Test was performed for the SDQ.

5.3 Effectiveness of the CBT Intervention compared to Waiting List Control

R-IES

There was a highly significant difference between groups in overall PTSD symptom severity ($F(1,23)=10.955$, $p=0.003$). Paired t-tests revealed that this was due to a significant decrease in total PTSD symptoms within the CBT group ($t(14)=2.934$, $p=0.011$) and a non-

significant trend towards an increase in total symptoms in the control group (t(10)=-2.003, p=0.073).

Another highly significant difference between groups was detected on the intrusion subscale score (F(1,23)=9.702, p=0.005). The CBT group showed a significant reduction in intrusive symptoms (t(14)=3.826, p=0.002) while there was no significant change in the control group. There was also a significant difference between groups on the arousal subscale score (F(1,23)=4.741, p=0.040). Paired t-tests revealed a strong but non-significant trend towards an increase in symptoms of arousal within the control group (t(10)=-2.119, p=0.060) but no significant change within the CBT group. No significant difference was found between groups on the avoidance subscale.

Overall, 88.5% of the children still had scores which exceeded the cut-off for likely diagnosis of PTSD. While 100% of the children within the control group remained at levels representing 'caseness', only 80% of the CBT group remained at this level of severity post-treatment compared to 86.7% pre-treatment.

DSRS

No significant difference was found between groups on the total depression score.

RCMAS

There was a significant difference between the CBT and control group in total anxiety score (F(1,23)=6.495, p=0.018). This was due to a non-significant trend towards a decrease in anxiety in the CBT group over time (t(14)=1.581, p=0.136), while in the control group there was a non-significant trend towards an increase in anxiety (t(10)=-2.042, p=0.068).

SDQ

Due to circumstances beyond the control of the investigator, it was only possible to obtain both time 1 and time 2 SDQs for 7 children in the control group and 8 children in the CBT group. The Wilcoxon Signed Ranks Test found two significant changes in the CBT group post-treatment. CBT group members showed a significant decrease in overall behavioural difficulties (Z=-2.207, p=0.027) and emotional symptoms (Z=-2.271, p=0.023). However, no significant changes were detected in the control group.

According to the qualitative data collected, 82% of the teachers reported that since attending the CBT group sessions their student's problems were 'a bit better' and another 18% answered that they were 'about the same'. Also, 82% of the teachers reported that attending the CBT sessions helped their student 'quite a lot' in other ways, e.g. providing information or making the problems more bearable. Another 9% reported the sessions helped 'only a little' and 9% replied that they 'did not know' if attending the group had been helpful.

5.4 Analyses of Follow-up Data

Follow-up data obtained 2 months after the final group session were only available on the first of the 3 separate CBT groups. This group contained 8 children. Data from these 8 children have already been included in the previous analyses conducted to evaluate CBT group effectiveness. It was not possible to conduct follow-up assessments with the other children who had completed the CBT intervention as a sufficient amount of time had not elapsed since their final group session. Table 9 shows the results of the paired t-test and non-parametric statistical analyses, which were conducted to investigate changes in scores post-treatment (time 2) and at follow-up (time 3).

At post-treatment this small group of 8 children showed a significant decrease in intrusive PTSD symptoms ($t(7)=2.610$, $p=0.035$), overall behavioural difficulties ($Z=-2.207$, $p=0.027$), and emotional symptoms ($Z=-2.271$, $p=0.023$). Non-significant trends towards a decrease in overall PTSD symptom severity ($t(7)=2.126$, $p=0.071$), peer relationship problems ($Z=-1.715$, $p=0.086$), conduct problems ($Z=-1.633$, $p=0.102$), and hyperactivity/inattention ($Z=-1.461$, $p=0.144$) were also detected. These findings suggest that there was an improvement in the children's psychological difficulties following the CBT group intervention. However, at follow-up no significant changes or trends were found on self-reported symptom scores compared to pre-treatment. As the SDQ was not administered at follow-up assessment, data on behavioural difficulties were not available. Findings from the follow-up assessment indicate that post-treatment improvements were not maintained over a two month period for this group of 8 children.

Table 9. Pre-treatment (time 1) to post-treatment (time 2) and pre-treatment to follow-up (time 3) symptom scores for the 8 CBT group members assessed at a 2 month follow-up

Measure	**Pre-treatment Time 1** Mean (SD)	**Post-treatment Time 2** Mean (SD)	**Follow-up Time 3** Mean (SD)
R-IES Total	**38.63 (6.82)**	**31.50 (7.39)**	**39.13 (7.04)**
Intrusion	13.88 (2.30)	10.88 (3.56) *	12.50 (3.16)
Avoidance	14.38 (3.78)	12.50 (3.46)	14.00 (5.13)
Arousal	10.38 (4.53)	8.13 (4.94)	12.63 (4.81)
DSRS Total	**11.25 (3.62)**	**12.50 (2.20)**	**10.50 (4.41)**
RCMAS Total	**17.50 (7.87)**	**16.75 (8.28)**	**15.88 (8.54)**
SDQ Total Difficulties	**9.63 (8.54)**	**5.63 (4.84) ***	
Emotional symptoms	2.25 (2.25)	1.00 (1.31) *	
Peer relationship problems	3.13 (1.81)	2.00 (1.60)	
Conduct problems	1.75 (2.77)	1.13 (2.03)	
Hyperactivity/ inattention	2.50 (3.12)	1.50 (1.60)	
Prosocial behaviour	7.13 (2.80)	7.25 (3.01)	

*denotes significance levels of $p \leq 0.05$ at Post-treatment (Time 2)
Significance levels were determined using paired t-tests for all variables, the only exception being that the Wilcoxon Signed Ranks Test was performed for the SDQ.

Chapter 6: DISCUSSION

6.1 General Discussion

The present study set out to evaluate a novel manual-based intervention designed to help groups of children from war-affected countries who had experienced traumatic events. This particular CBT intervention had never before been implemented within British schools. The provision of such psychological help within the school setting had the advantage of making the intervention easily accessible to large groups of traumatised children, who may not have otherwise received help. In addition, offering psychological help within a group format normalised the children's reactions to trauma. It also gave the children an opportunity to provide and receive support from their peers. This was particularly important as it seemed likely that many of the children's families were not in a position to provide this type of support as they were suffering from psychological difficulties of their own.

It is also important to note that the children who participated in this study were reporting severe psychological difficulties. Ninety-two percent of the children exceeded the cut-off for likely diagnosis of PTSD. The children also reported elevated levels of anxiety and depression. Such symptom severity clearly indicates that this sample of children were in need of psychological help. It is interesting to compare the level of symptom severity reported in the present study with that reported in a UNICEF-sponsored Psychosocial Programme involving 339 similarly aged Bosnian children who had also experienced traumatic wartime events (Smith, Perrin, Yule, & Rabe-Hasketh, 2001). Self-report data collected from the Bosnian children revealed massive amounts of exposure to war stressors and correspondingly high levels of PTSD symptoms. Such findings were similar to those in

the present study. However, the Bosnian children had normal levels of anxiety and depression. It therefore seems likely that the elevated levels of depression and anxiety found in the present study can be explained by the continuing sources of stress faced by the children. These children had to adjust to numerous major life changes, which included living in a new culture, learning a new language, financial hardships, overcrowded accommodation, and frequent re-housing. In addition, due to the difficulties involved in attaining refugee status, they lived with constant uncertainty about their future while attending potentially violent, inner London schools. In summary, the children who participated in this study had not only been exposed to traumatic experiences and tremendous losses in the past but they also continued to live under extremely stressful conditions in the present.

6.2 Discussion of Hypotheses

Hypothesis 1

The CBT intervention will result in an improvement in the children's psychological functioning with decreased PTSD symptoms, depression, and anxiety.

The CBT intervention led to an improvement in PTSD symptoms but not in depression or anxiety. There was a highly significant decrease in overall PTSD symptom severity and intrusive PTSD symptoms. As the group intervention was mainly designed to address symptoms of PTSD, such improvements indicate that the intervention was effective at achieving clinical improvement in this specifically targeted area of psychological difficulty. During group sessions children were eager to discuss and draw pictures of past traumatic experiences or related nightmares. Even those who had more limited English vocabulary

were able to participate fully in this aspect of the sessions. Children were also interested in learning imagery techniques and reported practising these strategies at home. It was clear to the group leader that children were actively engaged in these components of the intervention. As these techniques were aimed at reducing symptoms of an intrusive nature, it was therefore not surprising that PTSD symptoms of intrusion decreased following treatment. Tackling post-traumatic avoidance and arousal proved to be more difficult within a group format.

Although there were no significant changes in levels of depression or anxiety post-treatment, a non-significant trend towards a decrease in anxiety was apparent. It therefore seems likely that the opportunity to discuss upsetting events within a supportive environment and to learn relaxation exercises may have resulted in this shift in anxiety levels. However, the focused strategies taught during the intervention could not physically alter the stressful life circumstances, which these children were confronting on a daily basis. For example, most of these children and their families were awaiting decisions from the Home Office regarding their right to remain in the UK. The asylum applications of several families had already been rejected and the families were awaiting decisions regarding their appeal. In addition to this common source of insecurity, many children were suffering from financial hardships, as well as racial harassment and bullying at school. After taking such adversity into consideration, it is hardly surprising that the children reported high levels of depression and anxiety. It is also remarkable that this brief psychological intervention had such a beneficial impact on the children's PTSD symptoms.

Unfortunately these post-treatment improvements were not maintained by the eight CBT group members who were re-assessed at a two month follow-up. Although at post-treatment these eight children showed a significant decrease in intrusive PTSD symptoms and a non-significant trend towards a decrease in overall PTSD symptom severity, these improvements were no longer apparent at follow-up assessment. However, it is important to note that although not significant, there was a gradual decrease in self-reported anxiety scores over time. This suggests that there may have been slight improvement in the children's anxiety levels, regardless of their difficult life experiences. Events which were taking place at the time of the follow-up assessment, might have influenced the findings. For example, there was an increasingly negative political and media-driven attitude towards refugees in the UK. There had also been a recent flare up of violence in Macedonia, where many of the children's family members and friends had been living since the war in Kosovo. This undoubtedly led to an increase in war-related thoughts and worries for the children from Kosovo. As 7 out of the 8 children being re-assessed were from Kosovo, this may have contributed to the return of PTSD symptoms at follow-up.

It is not sensible to draw firm conclusions regarding treatment durability from such a small subset of the CBT group participants. However, it does seem likely that since these children were suffering from complex issues, monthly 'booster' sessions might in the future be a useful addition in order to maintain post-treatment improvements. Undoubtedly, family or multi-disciplinary interventions would also have proven to be supportive.

Hypothesis 2

The CBT intervention will result in an improvement in the children's behaviour with decreased emotional, peer, conduct, hyperactivity/inattention, and total difficulties, as well as increased prosocial behaviour.

According to the teachers' SDQ ratings, there was a significant improvement in overall behavioural difficulties and emotional symptoms following the CBT intervention. In addition, 82% of the teachers reported that since attending the group sessions their student's problems were better. They also thought that the sessions had helped their student 'quite a lot' in other ways, e.g. providing information or making the problems more bearable. Thus, the teachers observed positive changes in their students' behaviour post-treatment. It was particularly encouraging that a significant decrease in emotional symptoms and overall behavioural difficulties was observed, as an effective psychological intervention should result in emotional relief, as well as an improvement in overall behavioural functioning. The present study's findings suggest that such improvements were achieved.

Ratings for only 8 out of the 15 students were completed both pre and post-intervention. Therefore if more rating forms had been returned, further significant findings might have been detected. However, other reasons might also account for the lack of improvement in certain areas of the students' behaviour. For example, although there was no decrease in conduct problems, this can be explained by the fact that the majority of these children were already extremely well-behaved prior to the intervention. These refugee and asylum seeking children appeared to value their education highly. Most came from countries where teachers were respected and schools were highly disciplined. The children frequently expressed their surprise and disappointment over the disrespect shown towards teachers by their fellow

students. There were also no improvements reported in peer problems, prosocial behaviour, and hyperactivity/inattention. However, ratings in these three areas may have been affected by the children's language difficulties. As most of the children had limited English, they had trouble talking to or engaging with many of their peers and often appeared inattentive in the classroom because comprehending their English-speaking teachers was difficult. In addition, it was hard for these children to establish peer relationships or demonstrate prosocial behaviour while in such a violent, chaotic environment where open bullying by other students was often witnessed.

Hypothesis 3

The treatment group will demonstrate improvements in psychological functioning and behaviour following the intervention, whereas the control group will not show such improvements following the elapse of an identical but intervention-free time period.

As predicted, CBT group members showed improvements in psychological functioning (overall PTSD symptom severity and intrusive PTSD symptoms) and behaviour (overall behavioural difficulties and emotional symptoms) post-intervention. Also as hypothesised, the control group failed to show any significant improvement in psychological functioning or behaviour. However, the control group showed an unexpected tendency towards increases in overall PTSD symptom severity, PTSD symptoms of arousal, and anxiety but these changes were not statistically significant. Worryingly this slight increase in symptoms may indicate that refugee and asylum seeking children, who have experienced traumatic events get progressively worse over time if some form of intervention is not provided. Therefore, in addition to effectively lowering symptoms, the group CBT intervention may have had a preventative or protective function as well. It is possible that the anxiety of CBT group

members did not worsen due to the direct effect of the intervention, which taught the children to use progressive relaxation strategies and imagery techniques to decrease anxiety. Also, the reduction in persistent PTSD symptoms may have provided relief, which kept the children's anxiety from further increasing. The worsening of PTSD symptoms and anxiety in the control group may have been found in this particular London-based sample of refugee and asylum seeking children due to the particularly adverse life circumstances which they continued to face.

Similar findings were reported in a study evaluating the effectiveness of brief psychotherapy among early adolescents exposed to the Armenian earthquake (Goenjian et al., 1993). In this study, severity of PTSD symptoms increased *significantly* among those who were not treated, while severity of PTSD symptoms significantly decreased in those who received psychotherapy. Depressive symptoms also increased among those who did not receive psychotherapy, however there was no change in depressive symptoms in the adolescents receiving treatment. The researchers therefore concluded that the brief psychotherapy was effective in alleviating PTSD symptoms, as well as preventing the worsening of comborbid depression among early adolescents. However, the present data differ from the above study in that the worsening of symptoms in the control group were *not* statistically significant and it was anxiety rather than depression that got worse.

6.3 Difficulties encountered

A number of difficulties arose during the implementation of this project. Firstly, the two London secondary schools which participated in this research were extremely chaotic. Both schools were unfortunately understaffed, which placed current teachers under tremendous

strain because their class sizes were close to 40 and they were required to cover for other classes during their usual break times. School days appeared to be poorly structured and many students spent class periods roaming through the school grounds. The south London school had to employ security staff in an attempt to reduce the number of violent incidents which were occurring on a daily basis. In summary, these schools were far from ideal environments for the establishment of therapeutic groups. However, the schools were representative of the type of large, violent, inner London schools, which refugee and asylum seeking children typically attend. Other schools have usually reached their quota of students. They are also reluctant to accept children who are not fluent in English and therefore will adversely affect the school's academic standing by performing poorly on standardised exams. However, it is important to mention that one of the more positive features of the two schools who participated in this study was the presence of dedicated Ethnic Minority Achievement Group (EMAG) teachers. These teachers were enthusiastic about their work and had established close, supportive relationships with many of the school's refugee and asylum seeking students. They also assisted these students with practical difficulties outside the classroom by frequently accompanying them on visits to the Home Office or Immigration Advisory Services.

Teachers within the south London school complained that the SDQs were hard to complete because in a school of their size they did not know the students well enough to answer some of the questions. Class teachers often admitted that they knew little about their refugee or asylum seeking students, not only because of the language barrier but because these students were often well-behaved and therefore received less attention. Unfortunately, none of the teachers from this school had returned SDQs for the students who had completed the group intervention at the time of writing. This was because the last group session was held during

the final week of school term, which did not leave adequate time for their completion. In addition, the school's EMAG teacher who had originally encouraged teachers to complete the questionnaires was absent and so could not personally distribute or collect the questionnaires.

Minor difficulties were also encountered when attempting to implement some of the session content as suggested in the manual. Post-traumatic symptoms of avoidance proved particularly problematic to address in children exposed to war-related trauma. Many of the children reported that they stayed away from toy guns or violent films. Others did not watch news programmes because they wanted to avoid scenes of international conflict, as it reminded them of the violence they had previously witnessed. Although graded exposure is often encouraged in children experiencing trauma-related avoidance it was difficult to implement due to the nature and complexity of the trauma, i.e. war. However, graded exposure programmes could have been encouraged for individual children who had more idiosyncratic forms of avoidance. For example, one boy from Sierra Leone admitted that he never travelled on buses because they reminded him of the way the rebels had killed his brother, who had been run over by a truck. This child clearly may have benefited from an individually tailored programme of graded exposure in order to overcome his fear of large motor vehicles but it was difficult to plan such a detailed programme within a group setting. The fact that these symptoms of avoidance were so individualised and that graded exposure programmes were difficult to implement within a group intervention may explain why there was no significant decrease in PTSD symptoms of avoidance post-intervention.

Although strategies for coping with symptoms of arousal were easier to introduce within group sessions, practicalities often interfered with their implementation. For instance,

although the children enjoyed learning progressive relaxation exercises, it was difficult for the children to actually relax during the sessions due to the school's loud, chaotic environment, eg. there was constant shouting from students in nearby corridors. Several children were also self-conscious about doing such exercises in front of their peers but promised to try the exercises at home. Sleep hygiene was also discussed. Many children admitted that it was difficult for them to fall asleep at night because they lived in overcrowded accommodation, sharing a bedroom with a large number of siblings. Due to the close proximity of neighbouring flats, they also were surrounded by constant noise. Thus, although the children understood the importance of having a set bedtime and getting a sufficient amount of sleep every night, this was hard to achieve due to their present living situations.

An attempt was made to conduct parallel group sessions for parents and legal guardians. The main purpose of such sessions was to provide information regarding the range of common reactions shown by children exposed to trauma, as well as strategies for helping such children. Unfortunately, due to lack of attendance these sessions could not be conducted. As an alternative, information sheets were generated in an attempt to pass on factual knowledge and advice to the children's parents or legal guardians in an accessible manner. Each child who took part in the CBT sessions received a folder, which included sheets containing basic information about PTSD and effective coping strategies. New material was added to the folder at each session, in addition to the drawings and written material completed by the children. The children were asked to take these folders home to share with their parents or legal guardians. Clinical evidence suggests that children and their parents or guardians tend not to discuss past traumatic events due to fears of upsetting the other and vice versa. Therefore, family members negatively reinforce each other in their

avoidance, which sometimes prevents them from processing their traumatic memories. This is likely to maintain their symptoms. It was hoped that by sending home this folder filled with information and trauma-related material family members might be encouraged to discuss these past experiences, thereby processing some of these difficult memories. If time had permitted a separate leaflet, which provided basic information on PTSD and advice specifically for parents and legal guardians, would also have been translated and distributed to the adults. The addition of such a leaflet should be considered in future clinical work or studies of this type.

6.4 Clinical Observations

Children who attended the group sessions appeared to enjoy coming and were eager to talk about what had happened to them during the war in their native countries. In the first session it was a challenge to ensure that everyone had an opportunity to speak because all the children were so keen to share their past wartime experiences. Since group members were of similar ages and often from the same country most children already knew each other well. Due to naturally occurring friendships, there were also small cliques apparent within the groups. This did not generally cause problems but occasionally the children had to be reminded not to tease each other during the sessions.

There were noticeable differences between the sessions conducted primarily with children from Kosovo compared to those with children from Sierra Leone. In general, the children from Sierra Leone were much quieter and they spoke a great deal about the many atrocities they had witnessed, such as the amputations and methods of torture used by the rebels. During the sessions they frequently shared their disbelief over the horrific crimes committed by the rebel soldiers against innocent people. Group members also grappled with the issue of

forgiveness, as many of the children felt that they could never forgive the rebels for what they had done. The children from Kosovo talked less about the violence they had witnessed and appeared more distressed by the losses they had suffered, particularly regarding their homes, school friends, and extended family members.

6.5 Critique and Limitations of the Current Study

One of the main limitations of the current study was its small sample size. Also, the participants were from diverse countries and thus had experienced different types of wartime trauma. The study also lacked a structured diagnostic interview, which could have obtained more accurate data on the number of children who met criteria for PTSD as well as other psychiatric disorders.

The accuracy of the self-report measures may have been affected by the children's limited English. However, the children always completed the measures within a group setting and those who had the best English volunteered to interpret for others when they did not understand the vocabulary. This process of data collection proved time-consuming. Therefore, it may have been preferable to administer versions of these measures, which had been translated into the children's native language. Unfortunately translated versions were not readily available in several of the languages. It was also observed that at the second assessment children often wished to describe an even more upsetting traumatic event than they had reported on the R-IES at their previous assessment. For example, one boy who had stated at the initial assessment that seeing people beaten by soldiers was the most upsetting event, admitted at the second assessment that watching Serbian soldiers rape his mother had been far more upsetting. It is likely that the children were opting to share this more upsetting information at the second assessment out of a greater sense of familiarity with and

trust in the assessor. Due to such withholding of information at the initial assessment, it is possible that the level of post-traumatic stress might have been underestimated in several children.

The present study relied primarily on self-report measures. Other researchers have used physiological markers, such as salivary cortisol levels (Field, Seligman, Scafidi, & Schanberg, 1997) in addition to self-report measures in an attempt to confirm therapeutic change in children with post-traumatic stress. However, these tests are not in common usage and require further validation, as well as being beyond the scope of the present study.

6.6 Strengths of the Current Study

This study has replicated the findings of O'Shea et al. (2000) as it demonstrates that by working collaboratively with teachers, a population of children that does not readily access mental health facilities can receive psychological help through a school-based service. Although both studies achieved positive results, they relied on very different models of service delivery. In the study by O'Shea and colleagues (2000) mental health professionals visited a primary school one day a week in order to perform consultation or individual work with refugee children, who were experiencing a broad range of difficulties. Improvements were reported on teacher completed behaviour rating scales. In the current study a manual-based intervention has been clearly shown to result in improved psychological and behavioural functioning. However, the present study used a less-time consuming and more cost-effective strategy for providing psychological help. A mental health professional spent one hour each week for a six week period providing a cognitive-behavioural intervention to a group of children who had experienced traumatic wartime events within their former countries and appeared to be suffering from related psychological difficulties. As this

intervention was manual-based it could potentially be provided by a member of school staff. EMAG or pastoral care teachers would appear to be particularly well suited to this type of psychological group work. In addition, this intervention was designed to be conducted within a group format and therefore has the added advantage of providing help to many children at one time.

It is also important to recognise that the children themselves enjoyed attending the group and viewed it as helpful. There were very low rates of absenteeism although children were given the option of going to class instead if they chose. On only one occasion did a student decide to attend class instead of the group session and this occurred after his teacher threatened to fail him if he did not come to the lessons. Also, after attending the introductory session children at both schools brought along friends, who were also from war-affected countries, to the following group session and asked if they could attend the sessions as well. Finally, the EMAG teachers reported receiving very positive feedback regarding the group sessions from the children themselves.

6.7 Implications for Future Clinical Work

Based on the experience gained while conducting this study, certain suggestions can now be made regarding the structure and organisation of future groups conducted using this manual-based intervention. A group consisting entirely of children from the same country and ethnic background appeared most ideal. This was mainly because the children had experienced very similar traumatic events. They also generally knew each other, therefore they seemed to feel more comfortable sharing their thoughts and feelings. In addition, they could easily interpret for one another since they all spoke the same language. For groups which consisted of more than five older children (aged 11 to 15), it would have been helpful to have a group co-leader

and with younger children (under the age of nine) it was essential. Mixed gender groups seemed useful as the girls were often more willing to discuss their emotions and this appeared to encourage the boys to do so as well. Mixing older with younger children did not result in any obvious difficulties. Although past experience in conducting these type of groups can be used to guide the planning of future groups, it is always best to base such decisions on the individual characteristics and needs of those children who have been referred for help.

Post-treatment improvements did not appear to have been maintained in the group of 8 children who were re-assessed at a two month follow-up, therefore additional or 'booster' sessions may be required. It seems likely that if the intervention was stretched to ten sessions, which included additional homework, the durability of post-treatment improvements would improve. The extra four sessions could be offered on a fortnightly or monthly basis after the initial six weekly sessions. Further improvements might occur if the children's parents or legal guardians were more directly involved in the intervention. If schoolteachers personally invited the parents or legal guardians to attend parallel adult sessions then there might be higher rates of attendance, thus making such group sessions feasible. Information and advice imparted during the adult group sessions could result in more supportive home environments for the children, thereby leading to improved psychological well-being.

It is also important to consider how soon after a child's arrival in the UK would it be appropriate to offer this type of group intervention. First the child's safety must be ensured and basic needs met through the provision of adequate housing, food, and clothing. The child should also have begun attending school as schools often provide an important source

of predictability and routine in the child's otherwise chaotic life. Once these basic needs are being met then the provision of psychological help becomes possible. However, if the intervention is to be delivered in English then the children will need to have acquired a basic understanding of English so that they can contribute to and benefit from the group's discussion. Most of the children who participated in the present study had been living in the UK for approximately two years before they received this intervention. This seemed an appropriate length of time as they had acquired an adequate amount of English and they appeared to have adjusted to life in England. However, if the resources to employ an interpreter for the group sessions existed, then children who understood very little English would also be able to take part in the intervention.

During the group intervention it became clear that certain children would benefit from additional individual help. By the end of the 6 sessions the group leader had sufficient knowledge regarding the children and their specific difficulties to identify those individuals who displayed or expressed ongoing psychological difficulties. Thus, after the first six sessions appeared to be a good time to refer children on for more specialised psychological treatment.

Unfortunately there was one specific group of children for whom this intervention did not appeal. At both the north and south London schools, 15 and 16 year old boys from Kosovo were invited to participate in the group sessions but they chose not to take part. Their response appeared to be due in part to a 'macho' attitude. They considered talking about emotions to be a sign of weakness, which they did not want to display, especially in front of their peers. These adolescent boys also stated that talking about what happened in Kosovo would not help them. They believed that it was best to try to forget these upsetting events

from the past. Perhaps this particular group of adolescents would have been more likely to engage in some form of psychological intervention had the therapist been male or individual sessions offered.

6.8 Overall plans for future research

The present study raises a number of issues which should be investigated through future research. First it is important to find out whether these results can be replicated in other controlled studies with larger sample sizes. As this intervention is a very broad-based package it should also be deconstructed in order to determine which components are responsible for the observed improvements. The problem of maintaining positive post-intervention effects should also undergo investigation. It seems likely that the addition of 'booster' sessions or parallel sessions for parents and legal guardians may result in more durable treatment gains. Studies should also explore whether increasing the number of sessions to eight or ten instead of six, results in more significant or lasting improvements. Research could also focus on whether homogenous groups, single gender groups, or the addition of interpreters or co-leaders improves the intervention's effectiveness. Follow-up assessments which are conducted after longer than a two month period would also prove informative.

Another interesting question to address in future studies is whether this intervention proves even more effective if applied outside of London, in areas where the refugee and asylum seeking children suffer less severe socio-economic adversity. Groups of children living in less harsh environments may also report lower levels of depression and anxiety. It is possible that for such children the therapeutic improvements would be more easily maintained. However, children living under adversity within inner London may be most at risk of

continuing mental health problems. They may be the group with the greatest need due to their environment and thus may benefit most from treatment, whereas children living in nicer areas, within more supportive environments might be more likely to improve on their own. Therefore, it is extremely important that this intervention continues to be evaluated with children living in deprived areas, as they may be more likely to require treatment and may have more too gain.

The benefits of this intervention are likely to extend beyond symptom reduction or prevention of symptom exacerbation. They are likely to result in better overall adjustment. Also the reduction of chronic PTSD symptoms may help to prevent longer term academic difficulties, which may thus prevent loss of self-esteem, family disturbance, and peer rejection. Therefore it may be important to administer other measures, such as self-esteem questionnaires, in order to detect evidence for this more global improvement.

6.9 In the real world?

Can individuals who are not mental health professionals use this manual to deliver appropriate group treatment to children who have experienced trauma? Unfortunately, it was beyond the scope of the present study to answer this question with absolute certainty. However, an EMAG teacher did successfully implement this manual-based intervention during the feasibility study. This demonstrated that a schoolteacher was capable of leading these sessions after having read and briefly discussing the manual with a psychologist in clinical training. Therefore, evidence was obtained which suggests that teachers who are given brief training on how to use the manual are able to conduct this type of psychological treatment group. However, teachers or other individuals who are implementing this intervention should have access to supervision, even if it can only be provided over the

telephone, by mental health professionals familiar with the manual. This ensures that non-mental health professionals receive the necessary support and are given the opportunity to discuss any difficulties that may arise.

The ability of non-mental health professionals to implement this manual-based group intervention remains a particularly important issue to investigate through future research as the implications are huge. If it is proven that individuals who are not mental health professionals can administer the intervention, it would suggest that in addition to its use with refugee and asylum seeking children in the UK, the manual may also be applied worldwide. In the future a small group of mental health workers may be able to train large numbers of local inhabitants to conduct group treatment for people who have been exposed to traumatic events, such as war or natural disasters. This would greatly reduce the need to fly in large numbers of professionals following international conflicts or war.

Chapter 7: CONCLUSION

At present, support services and psychological treatment opportunities for refugee and asylum seeking children who have experienced trauma range from non-existent to minimal. The group intervention evaluated in this study has been shown to be effective in reducing PTSD symptoms and behavioural difficulties. It has also been successfully implemented with British schools. The use of group intervention makes effective psychological help potentially available to a much wider audience of refugee and asylum seeking children living in Britain, who are currently a hidden population. This intervention is manual-based, designed for group treatment and specifically designed to be administered by people who are *not* mental health professionals. This has the potentially huge advantage of not requiring the usual intensive use and time of many mental health professionals. This also makes the intervention highly cost-effective.

In addition, to its use within the UK refugee and asylum seeking population, the manual has the potential for worldwide application. Translated versions of the manual could be used by local people who are likely to have a better understanding and thus rapport with children in foreign countries than support workers from humanitarian organisations, for whom language is often a major obstacle. Therefore this manual may offer the possibility of rapid, widely available CBT-based psychological treatment for children and adolescents, who have experienced trauma, conducted by people they know and trust.

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APPENDICES

I. Letter of Ethical Approval from the Ethics Committee

II. Information Sheet and Consent Forms

III. War Trauma Questionnaire – Adapted Version

IV. Translated Letter Inviting Parents/Legal Guardians to Attend Parents' Group

Institute of Psychiatry

at The Maudsley

Ethical Committee (Research)

Research Ethics Co-ordinator
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KING'S College LONDON
Founded 1829

ETHICAL COMMITTEE (RESEARCH)

24 November, 2000

Professor William Yule
Department of Clinical Psychology
Institute of Psychiatry

Dear Professor Yule,

Re : A pilot evaluation into the effectiveness of a school-based group intervention for children from war-affected countries who have experienced trauma (179/00)

The Ethical Committee (Research) considered and approved the above study at its meeting on 17 November 2000.

Initial approval is given for one year. This will be extended automatically only on completion of annual progress reports on the study when requested by the EC(R). Please note that as Principal Investigator you are responsible for ensuring these reports are sent to us.

Please note that projects which have not commenced within two years of original approval must be re-submitted to the EC(R).

Any serious adverse events which occur in connection with this study should be reported to the Committee using the attached form.

Please quote Study No. 179/00 in all future correspondence.

Yours sincerely,

Margaret M. Chambers.

Margaret M Chambers
Research Ethics Coordinator

II. Information Sheet and Consent Forms

Letter from the School to Parents/Legal Guardians

December 2000

Dear Parent or Legal Guardian,

_____ School is offering extra help to students who come from countries where there are wars or violence. We are starting a special group, which will give children the chance to talk about any upsetting things that they might have heard or seen. These special groups will also teach children new ways of dealing with their worries or difficulties. We would like to invite your child to take part in these groups.

Before the groups start we would like to see your child in school to talk about his or her worries and past experiences. We would also like to let you know what the children are doing in the groups. To do this we will have two meetings for parents and legal guardians.

Please read the Information Sheet provided to learn more about this project. If you would like your child to take part in these groups then sign the consent form and return it to the school.

Sincerely yours,

Head Teacher

Information Sheet for Parents/Legal Guardians

Group sessions for students from war-affected countries who have experienced upsetting events

We are offering extra help to students who come from countries where there are wars or violence. We would like to invite your child to take part in these special groups.

What are these groups for?

Children who live in countries where there is violence, often experience upsetting events. Distressing experiences are hard to forget and children may have nightmares, concentration problems in school or other difficulties as a result. We are starting a special group, which will give children the chance to talk about any upsetting things that they might have heard or seen. The groups will also teach children new ways of dealing with their worries or difficulties. These groups have already been carried out in other countries. We are now conducting important research to find out if the groups are effective in Britain.

Where and when do the groups take place?

The groups will be held at _____ School during school hours. They will take place for 1 hour, once a week for a six week period. The people who will be working with your child are _____ (school staff), as well as Ms. Kim Ehntholt (psychologist).

If my child took part in this research what would he or she have to do?

Your child would be asked questions about past experiences and how he or she is feeling now. These questions will be asked on three or four different occasions. Your child would also be invited to attend six group sessions. All information gathered will be confidential.

Why are you asking my child to take part in this research?

The school believes that your child might benefit from this extra help. Taking part in this study is entirely voluntary. The study has been reviewed by an ethics committee. You can withdraw from this research at any time. If you do decide to withdraw, you do not have to give a reason and it will not affect your child's education in any way.

Will this research be of any direct benefit to me?

We will have two meetings for parents and legal guardians. These meetings will provide information about children's reactions to war, what the children are learning in their groups, and advice on how you can continue to help your child. There will also be opportunities to ask questions.

Who can I talk to if I want more information about this research?

Please ask if you have any questions. You can talk to _____ at school or Ms. Ehntholt on 020 7848 0223 at the Department of Psychology, Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF.

What should I do if I want my child to take part in this research?

Please sign the enclosed consent form and return it to the school as soon as possible.

Information Sheet for Young Person

Group sessions for students from war-affected countries who have experienced upsetting events

We are offering extra help to students who come from countries where there are wars or violence. We would like to invite you to take part in these special groups.

What are these groups for?

Children who live in countries where there is violence, often experience upsetting events. Distressing experiences are hard to forget and children may have nightmares, concentration problems in school or other difficulties as a result. We are starting a special group, which will give you the chance to talk about any upsetting things that you might have heard or seen. The groups will also teach you new ways of dealing with worries or difficulties. These groups have already been carried out in other countries. We are now conducting important research to find out if the groups also help in Britain.

Where and when do the groups take place?

The groups will be held at _____ School during school hours. They will take place for 1 hour, once a week for a six week period. The people who will be running these groups are _____ (school staff), as well as Ms. Kim Ehntholt (psychologist).

If I took part in this research what would I have to do?

You would be invited to answer questions about past experiences and how you are feeling now. These questions will be asked on three or four different days. You would also be invited to six group sessions. All information gathered will be strictly private.

Why are you asking me to take part in this research?

The school believes that you might benefit from this extra help. Taking part in this study is entirely voluntary. The study has been reviewed by an ethics committee. You can decide not to take part at any time. You do not have to give a reason why and it will not affect your education in any way.

Who can I talk to if I want more information about this research?

Please ask if you have any questions. You can talk to _____ at school or Ms. Ehntholt on 020 7848 0223 at the Department of Psychology, Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF.

What should I do if I want to take part in this research?

Please sign the consent form.

Consent Form for Parents/Legal Guardians

Group sessions for students from war-affected countries who have experienced upsetting events

I give permission for ..... to take part in the special groups which are being conducted at school for students from countries where there have been wars or violence.

I have read and understand the information sheet provided.

As part of the research project, my child will be asked to:
- Attend six group sessions
- Fill in questionnaires and answer questions

I understand that my child's participation is voluntary and that he/she can withdraw at any time without giving a reason and this will not affect my child's education in any way.

I understand that the information given by my child is confidential and will only be seen by the research team.

PLEASE RETURN THIS SIGNED SHEET TO THE SCHOOL IF YOU WOULD LIKE YOUR CHILD TO TAKE PART IN THE GROUPS

I give consent for my child to attend the groups and to take part in this research

Parent or Legal Guardian's Signature.....

Name Printed .....

Date .....

Thank you for your help with this research.

Group sessions for students from war-affected countries who have experienced upsetting events

I agree to take part in the special groups at school for students from countries where there have been wars or violence.

I have read and understand the information sheet provided.

As part of the research project, I will be asked to:
- Attend six group sessions
- Fill in questionnaires and answer questions

I have been given a chance to ask questions about this research.

I understand that I can decide not to answer some questions. I can also decide not to take part at any time and I will not have to give a reason why. These decisions will not affect my education in any way.

I understand that anything I talk about will be strictly private. Nothing I say will be passed on to my family or anyone else unless I want them to know something or unless it is required by law.

I would like to take part in the groups and this research

Young Person's Signature.....

Name Printed .....

Date .....

Thank you for your help with this research.

III. War Trauma Questionnaire – Adapted Version

UNICEF PSYCHOSOCIAL ASSESSMENT

WAR TRAUMA QUESTIONNAIRE
- Adapted Version

ABOUT YOU

1. What is your name?_____
2. Where do you come from (country)?_____
3. Your sex: Boy Girl
4. Your age:_____ years old
5. Where do you live today?
   ____With a host family.
   ____Live in an apartment/house with own family.
   ____Other (please describe)_____
6. Who do you live with now? _____
   _____
7. If you are not living with your mother or father, do you know where they are?
   My mother is_____
   My father is _____
8. When did you come to England (Month, day, year)? _____
9. What language did you speak?_____
10. What religion are you?_____
11. Do you currently have refugee or asylum status?_____

ABOUT THINGS THAT MIGHT HAVE HAPPENED DURING THE WAR

Separations

1. During the war, were you separated from BOTH of your parents (or primary caretakers) for a long time? Yes No
2. During the war, were you separated from ONE of your parents (or primary caretakers) for a long time? Yes No

Home and Possessions

3. Was your home seriously damaged in the war? Yes No

4. Were you forced by violence or threat of violence, to leave your home? Yes No

5. Were things stolen from your home? Yes No

6. Did someone steal money or things from you or your family while you were trying to leave your country? Yes No

Threat and Harm to Loved Ones

7. During or after your travel out of *(native country)*, was a family member or close friend missing or unaccounted for? Yes No

8. During the war, did someone threaten to seriously hurt or kill a family member or very close friend? Yes No

9. During the war, was anyone in your family or close friends hurt? Yes No

10. Was anyone in your family taken away to a camp or prison during the war? Yes No

11. Was a loved one tortured during the war? Yes No

Direct Physical Contact with Danger

12. During the war, were you ever so hungry that you thought you would die? Yes No

13. Were you ever so cold during the war that you thought you would die? Yes No

14. Were you physically assaulted during the war? (someone hit or kicked you, or hit you with an object) Yes No

Witnessing Violence

15. Did you see the massive destruction of property, such as seeing bridges or buildings being burned or shelled? Yes No

16. Did you see shelling or bombing from a very close distance? Yes No

17. Did you see shooting from a very close distance? Yes No

18. Did you see looting, burglary, or serious vandalism of property? Yes No

19. Did you see someone who was severely injured? Yes No

20. Did you see any dead bodies? Yes No

21. Did you see anyone <u>being</u> killed or severely injured? Yes No

22. Did you see many people being killed at once (a massacre)? Yes No
    IF YES, how many people were massacred? _____

23. Did you witness someone being taken prisoner by soldiers? Yes No

Physical Threat

24. Did a grenade or bomb ever land so close to you that you could have been seriously hurt or killed? Yes No

25. Did soldiers or men with guns come to your home? Yes No

26. Did anyone personally threaten to kill or seriously hurt you? Yes No

27. Was there ever a time during the war when you strongly believed you would be seriously hurt or killed? Yes No

Losses

28. Was your father killed in the war? Yes No

29. Was your mother killed in the war? Yes No

30. Was a brother or sister killed during the war? Yes No

31. Was a close member of your extended family (grandparent, aunt, uncle or cousin) killed during the war? Yes No

32. Was a close personal friend killed during the war? Yes No

I dashur prind/kujdestar 16/03/01

Sic e dini, femija juaj eshte perfshire ne nje grup ku jane diskutuar kujtime rreth vendit te tyre Keto sesione kane qene shume te suksesshme edhe femijet ishin shume te interesuar per te folur rreth ekseperiencave te tyre.

Tashme ne duam qe ju te vini ne shkolle dhe te takoheni me drejtuesen e grupit Miss Kimberly Ehntholt e cila do t`ju tregoje dicka me shume rreth temave qe femijet tuaj kane diskutuar ne kete grup.Ajo do te jete shume e kenaqur te takohet me ju dhe t`i pergjigjet pyetjeve qe ju mund te keni.Ajo gjithashtu,do t`ju shpjegoje se si ju mund t'i ndihmoni femijet tuaj,sidomos, nese ata kane kujtime te hidhura nga e kaluara.

Ju lutem ejani te na takoni ne

Librarine e shkolles
Te Enjten, 29 Mars
Ora: 18:30

Ju presim me padurim.Ju lutem nenshkruani ne menyre qe te na vini ne dijeni per ardhjen tuaj.Porositeni femijen tuaj ta riktheje kete forme tek Mrs Hessami ne shkolle.

Sinqerisht e juaja

K.Ehntholt

.....

Une do te marr pjese ne diskutimin ne grup diten e Enjte, 29 Mars, ne oren 18:30 ne librarine e shkolles

Nenshkrimi: .....

Service Evaluation Project

Evaluation of a CBT Group Treatment for In-patients with Auditory Hallucinations: A Pilot Study

Kimberly A. Ehntholt

Supervised by Professor Til Wykes

DClinPsy 1998–2001
Institute of Psychiatry, King's College, London

Contents

ABSTRACT

This study compares a group receiving cognitive-behavioural treatment (CBT) for auditory hallucinations to a control group, who received standard care only. All group members were adult in-patients who experienced distressing auditory hallucinations. Four CBT groups were conducted, three by individual clinical psychologists and one by nursing staff, who first participated in a brief training programme. The treatment groups provided education about 'voices', coping strategies, self-esteem building exercises, as well as general discussion and support. Evaluation included both quantitative and qualitative assessment methods. The effectiveness of the group treatment was evaluated in terms of measurable improvement in severity of auditory hallucinations, total number of psychiatric symptoms, level of insight into psychotic illness, beliefs about 'voices', and number of available coping strategies. In addition, the nursing staff were evaluated on their ability to follow the protocol and conduct CBT groups to standards equivalent to that of experienced clinical psychologists.

1. INTRODUCTION

1.1 Auditory Hallucinations

Auditory hallucinations (AH) are common among psychiatric patients and occur most frequently in schizophrenia. People experiencing auditory hallucinations or 'hearing voices' show diverse emotional and behavioural reactions (Romme & Escher, 1989). This can be explained by the difference in 'voice' content as some 'voices' are abusive and critical while others may be flattering or friendly. Psychiatric patients generally describe their AH as distressing, which is consistent with evidence that abusive AH are the most common (Nyani & David, 1996). People with AH often feel distressed by their lack of control over such an intrusive perceptual experience. Experiencing persistent AH has been associated with serious psychiatric conditions, such as anxiety, depression (Hustig & Hafner, 1990), and suicidal behaviour (Falloon & Talbot, 1981). Although AH are usually treated with antipsychotic medication, at least 25-30% of such cases are refractory to traditional antipsychotic drugs (Kane, Honigfeld, Singer, & Meltzer 1988; Meltzer, 1992).

1.2 Cognitive-Behavioural Treatment for Psychosis

During the past decade, there has been increasing interest in applying cognitive-behavioural methods to the treatment of AH and other psychotic symptoms. CBT strategies are based on learning principles and the assumption that altering an individual's beliefs about their experiences can reduce their levels of distress or symptoms. The CBT approach to psychosis is based on a stress-vulnerability model, which assumes that psychotic episodes occur as the result of both biological vulnerability and external life circumstances. Although studies sometimes evaluate slightly different CBT techniques, all CBT interventions share common features. In general CBT attempts to target and reduce the frequency, severity, and distress

associated with psychotic symptoms, enhance coping skills to better manage psychotic symptoms, and reduce stigma associated with the illness.

A variety of cognitive-behavioural interventions have been designed to reduce psychotic symptoms, primarily hallucinations and delusions, as well as the distress associated with them. Previous CBT approaches have included cognitive therapy with a normalising rationale (Kingdon & Turkington, 1991), coping strategy enhancement (Tarrier et al., 1993), focusing (Bentall, Haddock, & Slade, 1994), and comprehensive cognitive-behavioural therapy (Garety, Kuipers, Fowler, Chamberlain & Dunn, 1994). Case studies or simple pre-post designs have evaluated the effectiveness of such treatments. Many such investigations have shown that CBT has a therapeutic impact on hallucinations. For example, focusing, which requires an individual to attend to their AH by concentrating on the specific features such as content of the 'voices', is effective at decreasing symptoms during the self-monitoring period. However, the benefit does not appear to last beyond the monitoring or intervention period. The effectiveness of using distraction versus focusing as a coping strategy for schizophrenia patients with drug-resistant AH has also been investigated (Haddock, Slade, Bentall, Reid & Faragher, 1998). A significant increase in self-esteem occurred during treatment for focusers, however self-esteem dropped for distractors. Focusers also showed a greater belief that the 'voices' were their own thoughts at the final follow-up point. However, no overwhelming advantage was detected for one treatment over another. A different cognitive approach systematically disputed and tested the beliefs schizophrenia patients held about the omnipotence, identity, and purpose of their 'voices' (Chadwick & Birchwood, 1994). Large and stable reductions in their conviction in these beliefs were reported, which were associated with reduced distress, increased adaptive behaviour, and a fall in 'voice' activity.

According to a review by Beck and Rector (2000), recent studies indicate that the provision of CBT for psychosis offers clinically significant gains of 25-50% above and beyond that of medications. Most importantly, these positive gains appear to be maintained over time, thus resulting in lower relapse rates, less time in hospital, and reduced costs to the health care system.

1.3 CBT for Acutely Psychotic In-Patients

The above studies have primarily focused on the use of CBT to treat psychosis in an out-patient setting. Until recently the only treatment offered to patients experiencing recent-onset or acute symptoms was neuroleptic drugs (Baldessarini, Cohen, & Teicher, 1988). The experience of acute psychosis and the circumstances surrounding its management can be distressing and have been linked to post-traumatic stress disorder, post-psychotic depression, and increased risk of suicide (McGlashan, 1994). This suggests that there is a strong need for complementary treatment strategies. Any methods which reduce the duration and severity of acute psychosis are likely to result in fewer future difficulties. Focusing on acute psychotic episodes is important because they appear to be the source of residual symptoms. Also, shortening the duration of acute psychosis may be beneficial in itself since long periods of untreated psychosis are associated with increased relapse risk and treatment resistance (Loebel et al., 1992).

Drury, Birchwood, Cochrane, and MacMillan (1996a; 1996b) conducted a trial with acutely psychotic in-patients, who were diagnosed with schizophrenia and schizoaffective disorder. These in-patients were randomly allocated to either CBT, which consisted of individual sessions, group work, family sessions and activity scheduling or a control treatment of

recreational activities and informal support matched for therapist time. CBT included individual treatment of auditory hallucinations, which involved challenging beliefs about the significance of the 'voices' in order to modulate patients' emotional and behavioural reactions. Patients in the CBT condition also participated in group treatment, which gave them the opportunity to observe how other people's beliefs about 'voices' often included irrational elements and encouraged them to consider alternative explanations. Patients were also urged to develop new strategies for coping with positive symptoms. CBT significantly accelerated recovery from positive symptoms, reduced time spent in hospital, and resulted in a significantly greater reduction in hallucinations at the end of the twelve week period. These benefits were maintained at a 9 month follow-up: 95% of the patients receiving CBT showed no or only minor hallucinations or delusions as compared to 44% of the control group. However, this study lacked blind ratings and the intervention was of such complexity that it is not representative of most in-patient CBT.

Another recent study evaluated the effectiveness of CBT with in-patients experiencing a recent-onset acute episode of schizophrenia. Short-term individual CBT was compared to supportive counselling with psychoeducation as an adjunct to standard in-patient hospital care and medication (Haddock et al., 1999). Psychiatric symptoms showed significant reductions in both groups following treatment. No significant difference between the groups was found at a two year follow-up. It was therefore concluded that CBT and supportive counselling are both beneficial treatments for recent-onset acutely psychotic in-patients.

A multi-site trial of CBT for recent-onset schizophrenia (termed SOCRATES) is currently being conducted in order to further evaluate the effectiveness of CBT during acute episodes (Lewis et al., 1996). The trial aims to determine whether CBT is better than supportive

counselling and routine care alone in speeding recovery and preventing relapse in patients hospitalised for an episode of acute illness.

1.4 Group Treatment of Auditory Hallucinations

Although certain international voluntary organisations for 'voice' hearers have long considered groups essential in providing help to sufferers (Romme & Escher, 1989), psychologists have generally offered individual treatment. A recent report by the British Psychological Society (BPS) criticised the 'one size fits all' approach to treating psychosis. Instead symptom-based approaches to treatment were strongly advocated (BPS, 2000). The BPS also recommended that interventions be evidence-based and readily accessible to as many people suffering from a particular mental health difficulty as possible. Group CBT for people with AH would appear to fulfil such requirements.

The delivery of CBT for psychotic symptoms within a group format offers a number of potential advantages. For example, it may challenge the belief held by some patients, which adversely affects their self-esteem and general functioning, that certain psychotic phenomena are unique to them. Also, generalisation and modelling of coping strategies is often improved within a group setting. In addition, peer pressure may exert a positive influence on homework compliance. Finally, group therapy may permit delivery of CBT to more patients in relation to therapist time within a tightly budgeted health service.

Gledhill and colleagues conducted a study which assessed the effectiveness of group CBT for people with a diagnosis of schizophrenia, but who were not necessarily experiencing AH (Gledhill, Lobban, & Selwood, 1998). Significant symptomatic change was reported. Group members were less depressed, most had higher self-esteem and greater knowledge of

schizophrenia, and half the group felt better able to cope with their symptoms. Patients also reported feeling less isolated.

The first controlled study to investigate the effectiveness of group treatment for AH evaluated a group of patients with AH who attended weekly didactic education and discussion classes over a 12 week period (Buccheri, Trygstad, Kanas, Waldron, & Dowling, 1996). People with AH who were randomised into the control group received weekly teaching on different health topics. The experimental group assessed the usefulness of various behavioural symptom management strategies in reducing AH. The most useful strategies, based on patient's rankings, were watching television, listening to music with headphones, and talking to someone. A comparison of weekly scores showed no difference between the experimental and control groups in frequency, loudness or self-control over AH. However, significant improvements were found within individuals but using differing strategies and only of short-term benefit.

It is only recently that studies have been conducted to examine the effectiveness of group-based CBT for drug-resistant auditory hallucinations (Chadwick, Sambrooke, Rasch, & Davies, 2000; Wykes, Parr & Landau, 1999). Challenging the omnipotence of the 'voices' is often considered an important component in CBT for AH (Chadwick & Birchwood, 1994). It was applied within an eight session CBT group for people with schizophrenia or schizo-affective disorder. The treatment attempted to weaken the disabling beliefs about omnipotence and to increase a sense of personal control over the 'voices'. A significant reduction in the group members' conviction in beliefs about omnipotence and an increase in perceived control over the 'voices' occurred post-treatment (Chadwick et al., 2000).

Another recent study evaluated the effectiveness of group CBT on insight, symptoms, and particularly auditory hallucinations (Wykes, Parr, & Landau, 1999). Individuals diagnosed with schizophrenia were referred to a group CBT programme, which consisted of six sessions and emphasised individual power and control, as well as coping strategies. There were changes in perceived power and distress, as well as increases in the number and effectiveness of coping strategies.

Due to the optimistic findings of the above study, it was decided to implement a similar programme for in-patients. However, one of the problems with running a six session group treatment programme for in-patients is that patients are often discharged before they have completed the programme. One of the aims of the present study was to examine the effectiveness of a briefer in-patient group CBT programme consisting of only three sessions.

1.5 The Implementation of CBT by Non-psychologists

The routine implementation of empirically validated psychosocial treatments within mental health services remains patchy. This may be due to a lack of appropriate knowledge or clinical skills within the workforce. It may also be that these clinical techniques are too difficult for mental health workers, who have not had a thorough background training in psychology, to learn and implement. For example, the evaluation of one training programme found that attendance at a CBT workshop, which involved 30-35 hours of training, did not lead to an increased knowledge or implementation of CBT skills (Kavanagh et al., 1993). However, Lam, Kuipers and Leff (1993) found that psychiatric nurses trained in cognitive-behaviourally oriented schizophrenia family work displayed an increase in knowledge about the illness and family work, as well as positive changes in their attitudes and beliefs about this area.

Further evidence suggests that given appropriate training, CBT can be applied effectively to various patient populations by a range of mental health professionals. According to outcome data collected by nurse therapy training courses, patients seen by trainee nurses have shown a reduction in symptom ratings and improved social functioning at the end of treatment (Duggan, Marks, & Richard, 1993). These improvements appear to be due to treatment since the majority of these patients suffered from disorders which were unlikely to spontaneously remit, such as agoraphobia, specific phobia, and OCD. Psychiatric nurses, trained in cognitive therapy and acting as therapists, have also been shown to establish and engage in therapeutic alliances which encourage improvement in patients with schizophrenia and other types of long-term mentally illness (Svensson & Hansson, 1999). Positive outcomes in cognitive-behavioural interventions applied by nurses both individually and in groups have been reported across a range of conditions, including schizophrenia (Sensky, Turkington, & Kingdon, 2000), chronic insomnia (Espie, Inglis, Tessier, & Harvey, 2001), and borderline personality disorder (Miller, Eisner, & Allport, 1994). The Thorn Initiative training course, a cognitive-behaviourally oriented programme set up to train mental health professionals, has also demonstrated that CBT implemented by trainees can lead to significant improvements with psychotic patients (Lancashire et al., 1997). However, there have been no studies examining whether psychiatric nurses can learn to conduct brief in-patient group CBT programmes for acutely ill patients with auditory hallucinations, and this will be one of the research questions addressed in the present study.

2. AIMS OF THE PRESENT STUDY

This pilot study aimed to investigate:

1) the feasibility of providing short-term group CBT to acutely ill in-patients
2) the effectiveness of short-term group CBT for in-patients with distressing auditory hallucinations
3) whether psychiatric nursing staff who had undergone a brief training session were capable of conducting CBT groups to the same standards as experienced clinical psychologists

3. METHOD

3.1 Entry Criteria

In-patients who were experiencing or had recently experienced distressing auditory hallucinations, which were not the result of an organic disorder, were invited to take part in the study.

3.2 Design

Part a: prospective longitudinal study

This was a comparison of outcome over a 12 week period between a treatment group (three sessions of group CBT for auditory hallucinations) and a control group who received standard care. The dependent variables were measured three times: baseline, post-treatment (to measure the effectiveness of the therapy) and follow-up (to measure the durability of therapeutic changes). Treatment and control groups were recruited from in-patient wards at the Maudsley Hospital. The control group participants were recruited from wards where no

treatment groups were currently being conducted. The main outcome measure was severity of auditory hallucinations. The secondary outcome measures were: total number of symptoms, level of insight into psychotic illness, beliefs about 'voices', and number of coping strategies reported.

Part b: evaluation of the efficacy of CBT provided by nursing staff

This investigation was conducted to determine whether other health professionals could be successfully trained to conduct group CBT for this particular client group. A clinical psychologist, who had over 5 years of experience conducting groups for people with auditory hallucinations, provided a 2 hour educational session. During this teaching session, basic CBT principles, as well as the protocol for group treatment sessions were explained and demonstrated. The nurses also had the opportunity to observe the psychologist leading two treatment groups of three sessions each. The psychologist offered weekly supervision to the nurses once they began to conduct their own treatment groups.

3.3 Procedure

Ethical approval was obtained and all study participants gave written informed consent (see Appendix I). Assessments were conducted for both groups of participants on three different occasions: baseline (week 1), post-treatment (week 4), and at a two month follow-up (week 12). Participants in both groups received monetary compensation for the time spent completing assessment questionnaires and answering the investigator's questions regarding coping strategies.

Training efficacy was assessed during live observations of the group treatment sessions. The nursing staff were evaluated on their ability to follow the set protocol and use CBT skills to

the same standards as the clinical psychologists. These skills were assessed using a protocol checklist and the cognitive therapy observer rating scale.

Two experienced clinical psychologists and two nurses, who were staff members on a participating psychiatric ward, acted as group leaders. A psychologist in clinical training was responsible for collecting the assessment measures. Psychiatrists from the in-patient wards rated each participant's psychiatric symptoms pre and post-treatment.

3.4 Assessment Measures for Evaluating the Effectiveness of Group Treatment

Main outcome measure

Psychotic Symptom Rating Scale: Auditory Hallucinations Subscale

(PSYRATS: AHS; Haddock, McCarron, Tarrier & Faragher, 1999)

The Auditory Hallucinations Subscale (AHS) is an 11 item self-report scale, which uses a structured interview format to assess different aspects of auditory hallucinations. It measures the frequency, duration, location, and loudness of 'voices'; beliefs about the origin of 'voices'; amount and degree of negative content; amount and intensity of distress experienced; disruption to life; and perceived controllability over the 'voices'. The person's responses are based on the last week for most items. However, beliefs regarding the cause of the 'voices' and their loudness are rated according to the belief and experience at the time of the interview. Higher scores reflect more severe hallucinations. The associations between ratings on items of the AHS and those of the KGV Psychiatric Assessment Scale demonstrate this scale's validity. The AHS has high inter-rater reliability with coefficients above 0.90 for 9 of the items, and more than 0.75 for the other two items (disruption and control).

Secondary outcome measures

(1) *Expanded Brief Psychiatric Rating Scale* (BPRS-E, Lukoff, Nuechterlein, &Ventura 1986)

The Expanded Brief Psychiatric Rating Scale (BPRS-E) is a 24 item scale completed by an independent clinician. It is a reliable and valid measure (Hafkenscheid, 1991) that can be successfully used to monitor symptom changes over time. A BPRS-E manual has been developed (Ventura, Green, Shaner, & Liberman, 1993) to assist clinicians in sensitively eliciting psychiatric symptoms and reliably rating their severity. The measure's reliability has improved following the development of standardised interview questions for eliciting psychopathology and anchor points for rating symptoms.

(2) *Self-Report Insight Scale for Psychosis* (IS; Birchwood et al, 1994)

This 8 item self-report questionnaire measures total insight, as well as symptom attribution, illness awareness, and level of acceptance regarding need for treatment. The Insight Scale for Psychosis (IS) is a quick and acceptable measure, which has been shown by the authors to be valid, as well as sensitive to individual difference and change. It also has high test-retest reliability (mean correlation = 0.90) and internal reliability (mean Cronbach's α = 0.75).

(3) *Beliefs About Voices Questionnaire* (BAVQ; Chadwick & Birchwood, 1995)

The Beliefs About Voices Questionnaire (BAVQ) is a self-report measure which asks people hearing 'voices' whether they believe the 'voice' is malevolent or benevolent and whether they resist or engage with the 'voice'. The measure contains six items for malevolence, six for benevolence, nine for resistance, eight for engagement, and one item which assesses the

'voice's' power. The BAVQ is completed for only one 'voice'. A person who hears more than one 'voice' completes the questionnaire for the most dominant 'voice'. The authors have established the psychometric properties of the four BAVQ scales. It has high test-retest reliability (mean correlation = 0.89) and internal reliability (mean Cronbach's $\alpha = 0.85$). Good construct validity is indicated because factor analysis on each scale yields a single strong factor in each instance with balanced item loading. In addition, the BAVQ accurately classifies people with 'voices' of a known disposition (malevolent, benevolent, and neutral), indicating concurrent validity.

(4) *Self-reported Coping Strategies*

During each assessment, the investigator questioned the participants about the number of effective coping strategies that they were using in response to auditory hallucinations.

3.5 Assessment Measures for Evaluating Therapist Ability

(1) *Cognitive Therapy Scale* (CTS; Young & Beck ,1980)

The Cognitive Therapy Scale (CTS) is a 13 item observer-rating scale originally designed to evaluate therapist competence in cognitive therapy for depression. All the variables are rated on a 7 point Likert-type scale and the variable scale values are associated with concrete behavioural descriptions. The CTS is divided into 2 subscales. The General Skills subscale measures general therapy skills that are not thought to be unique to CBT. Items included in this subscale are the establishment of an agenda, eliciting patient feedback, collaboration, efficient pacing of the session, interpersonal effectiveness, empathic skills, and professionalism. The Specific Therapy Skills subscale is designed to rate items that are thought to be unique to CBT, such as the use of guided discovery, case conceptualisation, focus on key cognitions, application of cognitive-behavioural techniques, and quality of

homework assigned. A total score provides an overall estimate of the quality with which the therapist administered cognitive therapy within the session. The psychometric properties of the CTS have been established in a study by Vallis, Shaw, and Dobson (1986). The CTS was found to have moderate interrater reliability (reliability coefficient = 0.59) with aggregation leading to an increase in reliabililty. All items correlated moderately to highly with both subscales and the total score, indicating good internal consistency. Discriminant validity was demonstrated by the ability of CTS scores to clearly discriminate between performance independently judged as acceptable or unacceptable. The discriminant validity data also indicate that CTS total scores reflect cognitive therapy competency. Two CTS items (use of guided discovery and focus on key cognitions) were excluded from the present study because they were not applicable to the type of protocol-led CBT being provided within a group format.

(2) *Group Treatment Protocol Checklist*

A simple checklist (see Appendix II) was derived from the original six session 'Voices Group Protocol' devised by Wykes, Hayward, and Parr (1998). The main topics to be covered, primary aims, as well as the more specific points to be included in the group's discussion are listed for each session. The protocol checklist also contains examples of intervention techniques and model responses for the group leaders to follow.

3.6 Details of the Group Treatment Sessions

A total of three sessions, each for one hour's duration, were provided to all participants in the treatment group. Two sessions were scheduled for the first week and one for the following week. The treatment groups were closed. Each treatment group consisted of up to five patients. Sessions were held in the conference room on participating wards.

Sessions were based on CBT principles and utilised methods found to be effective in the study by Wykes, Parr and Landau (1999). They included segments from a 'Horizons' video and followed a semi-structured format. Each session was based on a detailed protocol, which focused on two main themes:

Session 1 -	Sharing Information About the 'Voices' Models of Psychosis
Session 2 -	Models of Hallucinations Effective Coping Strategies
Session 3 -	Improving Self-esteem Overall Model of Coping with the 'Voices'

3.7 Statistical Analysis

Data summary and routine analyses were carried out using SPSS for Windows (Version 10.0). Separate analyses of covariance (ANCOVA) were used to investigate whether there were between-group differences at post-treatment (week 4) and at follow-up (week 12) when baseline measures were entered as covariates. If statistical significance or trends were found then further investigation was carried out with appropriate t-tests or nonparametric statistics. Repeated measures analysis was not conducted because of the reduced numbers of participants at follow-up assessment. Alternative analysis using REML (random effects) model was not thought reasonable considering the small sample size.

Power Calculations

A sample size of 9 in each group will have 80% power to detect a difference in means of 9.000 (the difference between a Group 1 mean of 34.00 and a Group 2 mean of 25.000) on the AHS total score assuming that the common standard deviation is 6.250 using a two group t-test with a 0.050 two-sided significance level. This calculation was based on Wykes, Parr, & Landau (1999).

4. RESULTS

4.1 Baseline Data

Participants

Demographic and psychiatric details for the 23 participants are presented in Tables 1 and 2. Although both groups were roughly matched for demographic characteristics they were not initially chosen on this basis. As these tables demonstrate, the majority of participants were middle aged and had a primary diagnosis of schizophrenia. There were 7 in-patients in both the treatment group (n=12) and control group (n=11) who had a primary diagnosis of schizophrenia. Other participants had diagnoses including schizo-affective disorder, psychotic depression, bipolar disorder, and borderline personality disorder. Although the two groups were similar overall in their baseline characteristics, the control group's present hospital admission was of significantly longer duration ($t(21)=-2.184$, $p=0.044$). For additional demographic details of the trial participants please see Appendix III.

Clinical demographics

Clinical data for the trial participants are presented in Table 3. Differences between the two groups were detected on the AHS. At baseline assessment the control group had more severe auditory hallucinations than the CBT group ($t(17)=-2.719$, $p=0.015$). At this initial assessment the control group also reported that their auditory hallucinations were louder ($t(17)=-2.397$, $p=0.028$), more negative ($t(17)=-3.259$, $p=0.005$), and more distressing ($t(17)=-2.604$, $p=0.019$). These significant differences between the 2 groups at baseline have been taken into account by carrying out ANCOVAs.

Table 1. Demographic and present hospital admission details of trial participants

	Control group (n=11)	**CBT group** (n=12)
Mean age /years (s.d.)	35.5 (11.5)	38.7 (14.4)
Mean duration of present admission /weeks (s.d.)	13.0 (7.6)	7.3 * (4.4)
Type of present admission		
Formal	4	2
Informal	7	10
Gender		
Male	5	8
Female	6	4
Ethnic Background		
Caucasian British	7	5
Afro-Caribbean	3	3
African	1	3
Indian	0	1

*$p \leq 0.05$

Significance levels were determined using independent t-tests or Fisher's Exact Test.

Table 2. Psychiatric details of trial participants

	Control group (n=11)	**CBT group** (n=12)
Primary Diagnosis		
Schizophrenia	7	7
Schizo-affective disorder	2	1
Psychotic depression	1	2
Bipolar disorder	0	1
Borderline personality disorder	1	1
History of attempted suicide/self-harm	5	6
Time since 1st psychiatric hospital admission		
None (1st admission)	0	4
6 months-1 year	1	1
1-5 years	3	1
5-10 years	4	4
>10 years	3	2
History of auditory hallucinations		
< 1 year	0	3
1 year	1	1
1-5 years	1	1
5-10 years	2	3
> 10 years	7	4

Table 3. Clinical data on trial participants at baseline

Measure	Control group	(n=11)	CBT group	(n=12)	Sig. *p* value
	Mean	SD	Mean	SD	
AHS Total	**34.6 (n=10)**	**3.6**	**30.0 (n=9)**	**3.7**	**0.015**
Frequency	2.8	1.3	2.4	1.6	NS
Duration	3.1	0.99	2.7	1.1	NS
Loudness	2.2	0.63	1.6	0.5	0.028
Location	1.9	0.99	1.6	1.1	NS
Beliefs re. Origin of Voices	3.0	1.2	2.4	1.2	NS
Amount of Negative Content	3.7	0.48	2.9	0.60	0.005
Degree of Negative Content	4.0	0.00	3.6	0.73	NS
Amount of Distress	3.8	0.63	3.0	0.71	0.019
Intensity of Distress	3.0	0.82	2.8	0.44	NS
Disruption	3.2	0.42	3.1	0.60	NS
Controllability	3.5	0.69	3.1	0.79	NS
BAVQ					
Malevolence	13.2	2.3	11.9	3.4	NS
Benevolence	1.6	3.4	1.7	2.1	NS
Omnipotence	11.6	4.4	10.0	2.3	NS
Resistance	21.2	3.3	17.5	5.8	NS
Engagement	1.7	4.0	3.3	4.7	NS
Insight Scale Total	**9.0**	**5.4**	**10.8**	**3.5**	**NS**
Symptom Attribution	2.0	1.7	2.5	1.4	NS
Need for Treatment	2.5	1.3	2.9	0.88	NS
Awareness of Illness	2.0	1.6	2.5	1.5	NS
Coping Strategies Total	**2.2**	**2.0**	**2.7**	**2.2**	**NS**
BPRS-E Total	**64.3 (n=9)**	**19.4**	**51.0 (n=12)**	**23.5**	**NS**

Significance levels were determined using independent t-tests for all variables.

4.2 Feasibility of providing short-term group CBT to in-patients – aim (1)

The organisation and provision of short-term group CBT was found to be feasible. A total of 4 different in-patient groups were organised within a 1 year period on 2 separate adult psychiatric wards. Twelve in-patients attended 2 out of the 3 group sessions and half attended all 3 sessions. Reasons given for non-attendance were hospital discharge, migraines, failure to remember session, and medication-induced drowsiness.

4.3 Effectiveness of short-term group CBT for in-patients with distressing auditory hallucinations – aim (2)

4.3.1 Post-treatment effects

Post-treatment effects were analysed using separate analyses of covariance to detect differences between the two groups over assessment time 1 (baseline) and time 2 (post-treatment for the CBT group). The score at time 2 was the dependent variable, the score at time 1 acted as the covariate, and group was the fixed factor. Non-parametric tests were used to analyse the BPRS-E. Post-treatment results are shown graphically on Figure 1 a-d (for BPRS-E, AHS, IS total scores, and self-reported coping strategies). Significant differences in the outcome measures were further investigated using t-tests or appropriate nonparametric statistics to examine the change in scores for each group separately. Table 4 shows the results of these analyses which are discussed below.

Main outcome

AHS Total A significant difference between groups was found at post-treatment (ANCOVA: $F(1,16)=49.409$, $p=0.035$).

Secondary Outcome Measures

BPRS-E Total A significant decrease was found in the CBT group at post-treatment (Wilcoxon: $Z=-1.970$, $p=0.049$) but no significant changes were found in the control group.

IS Total No significant difference between groups was found at post-treatment or follow-up (ANCOVA).

Coping Total A significant difference was found between groups at post-treatment (ANCOVA: $F(1,20)=44.454$, $p<0.0005$) and follow-up ($F(1,14)=13.198$, $p=0.003$).

Table 4. Mean scores (SD) at Baseline (Time 1) and Post-treatment (Time 2) for both groups

Measure	Control Group (n=11)			CBT Group (n=12)		
	Time 1 Mean (SD)	**Time 2** Mean (SD)	**Sig.**	**Time 1** Mean (SD)	**Time 2** Mean (SD)	**Sig.**
AHS Total	**34.6 (3.6)**	**33.2 (4.6)**	NS	**30.0 (3.7)**	**25.2 (4.3)**	***
Frequency	2.8 (1.3)	2.9 (1.3)	NS	2.6 (1.5)	2.3 (1.4)	**
Duration	3.1 (1.0)	3.1 (1.1)	NS	2.7 (1.1)	2.1 (1.2)	*
Loudness	2.2 (0.63)	2.0 (0.47)	NS	1.6 (0.53)	1.7 (0.50)	NS
Location	1.9 (0.99)	2.4 (1.1)	*	1.6 (1.1)	1.6 (1.1)	NS
Beliefs re Origin of 'voices'	3.0 (1.2)	3.0 (1.2)	NS	2.4 (1.2)	1.8 (1.1)	**
Amount of Negative content	3.7 (0.48)	3.4 (0.70)	NS	2.9 (0.60)	2.7 (0.71)	NS
Degree of Negative content	4.0 (0.00)	3.8 (0.42)	NS	3.6 (0.73)	3.2 (0.67)	*
Amount of Distress	3.8 (0.63)	3.1 (0.88)	**	3.0 (0.71)	2.3 (0.87)	**
Intensity of Distress	3.0 (0.82)	3.0 (0.94)	NS	2.8 (0.44)	2.1 (0.78)	**
Disruption	3.2 (0.42)	2.9 (0.57)	NS	3.1 (0.60)	2.7 (1.0)	NS
Controllability	3.5 (0.69)	3.2 (0.60)	*	3.1 (0.79)	2.3 (1.2)	**
BAVQ						
Malevolence	13.2 (2.3)	12.0 (2.6)	NS	11.9 (3.4)	10.8 (3.0)	NS
Benevolence	1.6 (3.4)	1.6 (2.8)	NS	1.7 (2.1)	1.6 (2.1)	NS
Omnipotence	11.6 (4.4)	11.2 (3.6)	NS	10.0 (2.3)	8.7 (3.2)	*
Resistance	21.2 (3.3)	22.4 (3.2)	NS	17.5 (5.8)	20.2 (4.3)	**
Engagement	1.7 (4.0)	3.1 (4.8)	*	3.3 (4.7)	4.2 (5.2)	**
Insight Scale Total	**9.0 (5.40)**	**9.3 (5.2)**	**NS**	**10.8 (3.5)**	**11.7 (3.5)**	*
Symptom Attribution	2.0 (1.7)	2.1 (1.5)	NS	2.5 (1.4)	3.1 (1.1)	**
Need for Treatment	2.5 (1.3)	2.6 (1.4)	NS	2.9 (0.88)	2.9 (1.1)	NS
Awareness of Illness	2.0 (1.6)	2.1 (1.3)	NS	2.5 (1.5)	2.8 (1.1)	NS
Coping Strategies Total	**2.2 (2.0)**	**2.6 (1.8)**	**NS**	**2.7 (2.2)**	**6.9 (1.9)**	***
BPRS-E Total	**58.7 (16.7)**	**53.9 (22.7)**	**NS (n=7)**	**48.9 (22.8)**	**41.7 (18.6)**	** **(n=10)**

*p=non-significant trend (>0.05 up to and including 0.14); **$p \leq 0.05$; ***$p < 0.01$; NS=not significant
Significance levels were determined using paired t-tests for all variables, the only exception being that the Wilcoxon Signed Ranks Test was performed for the BPRS-E.

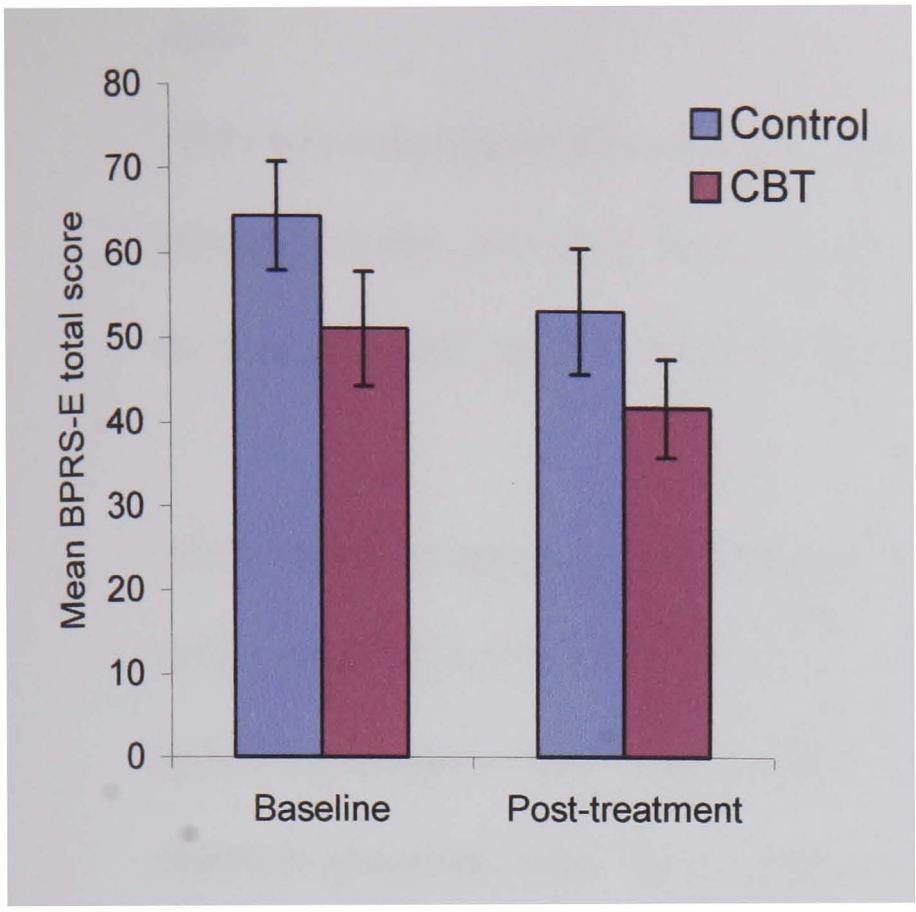

Figure 1a. BPRS-E total score

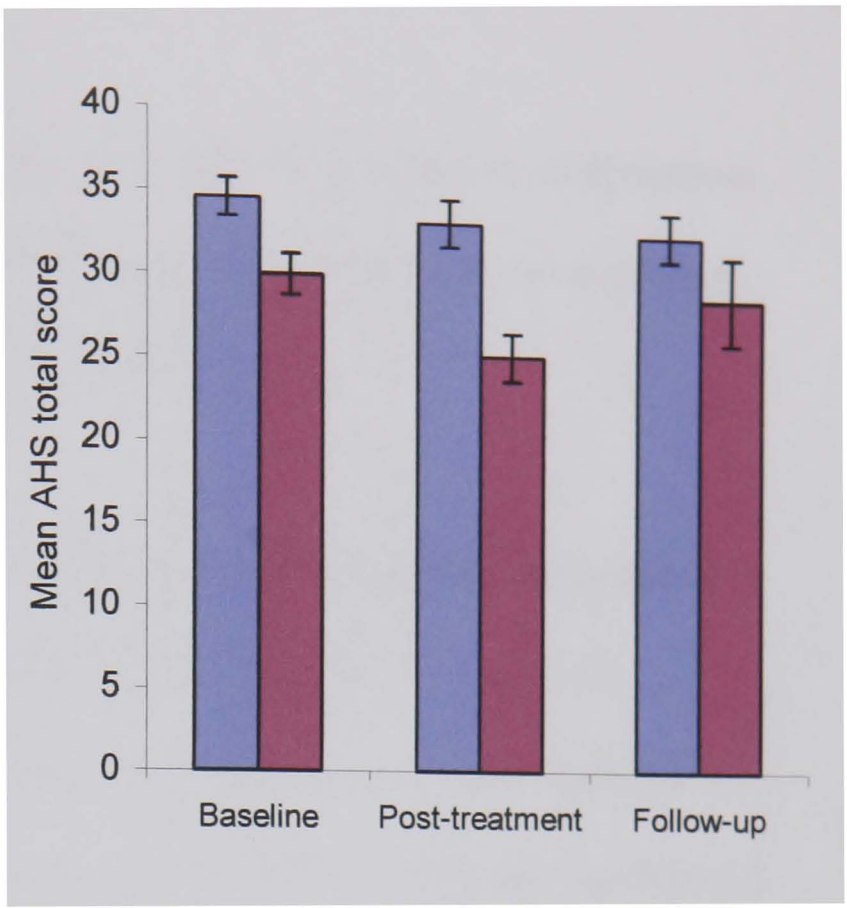

Figure 1b. AHS total score

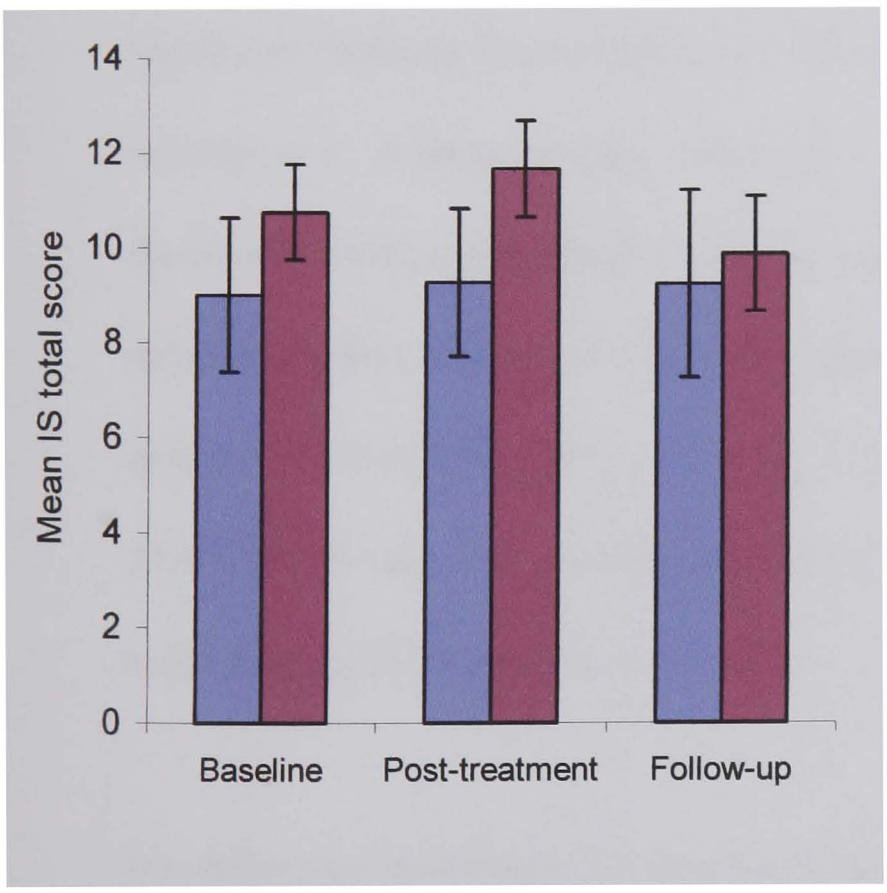

Figure 1c. IS total score

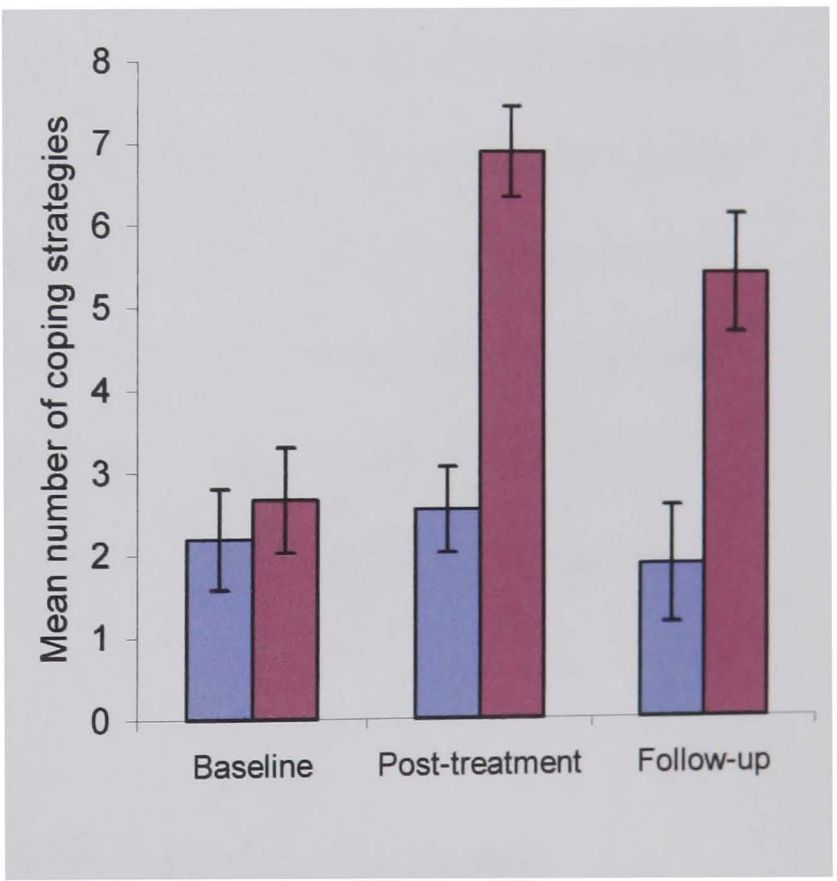

Figure 1d. Coping strategies

Figure 1 a–d. Mean outcome measures comparing control to CBT group over time for BPRS-E, AHS, IS scores, and number of self-reported coping strategies. Error bars denote standard error of the mean.

AHS

There was a significant difference between groups in the **severity** of auditory hallucinations ($F(1,16)=49.409$, $p=0.035$). Paired t-tests found that the CBT group showed a significant decrease in severity post-treatment ($t(8)=5.007$, $p=0.001$).

There was also a significant difference between groups in **beliefs regarding the origin** of their 'voices' ($F(1,20)=5.071$, $p=0.036$). In the CBT group there was a statistically significant change with more individuals beginning to believe that their 'voice' might be internally generated rather than from an external source ($t(11)=2.244$, $p=0.046$) see Figure 2.

A significant difference between groups was also found in **frequency** of auditory hallucinations ($F(1,19)=7.189$, $p=0.015$). Those in the CBT group showed a statistically significant decrease in the frequency of their auditory hallucinations ($t(10)=2.390$, $p=0.038$) see Figure 3. A more detailed investigation was conducted using paired t-tests for only the members of both groups diagnosed with schizophrenia. A non-significant trend towards a reduction in frequency of hallucinations was found for those with schizophrenia in the CBT group ($t(7)=2.049$, $p=0.080$) but not for those with schizophrenia in the control group. Therefore, the significant difference in frequency could not be accounted for by the non-schizophrenia individuals in each group.

The difference in **intensity of distress** between groups approached significance ($F(1,16)=4.283$, $p=0.055$) with the CBT group demonstrating a significant decrease in the intensity of distress caused by the auditory hallucinations post-treatment ($t(8)=2.309$, $p=0.050$) see Figure 4.

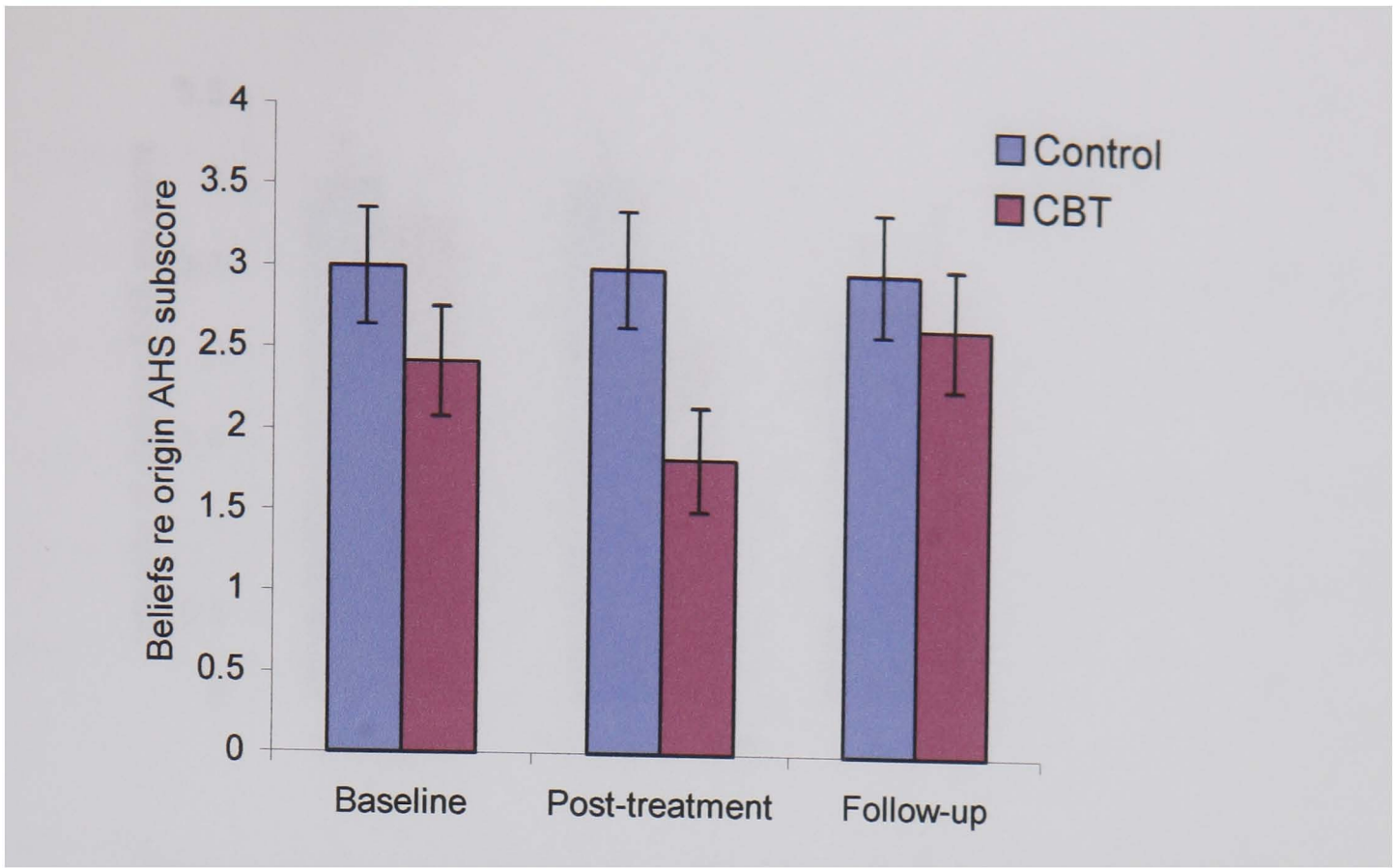

Figure 2. Beliefs regarding origin of auditory hallucinations (AHS subscore) comparing control with CBT group over time.

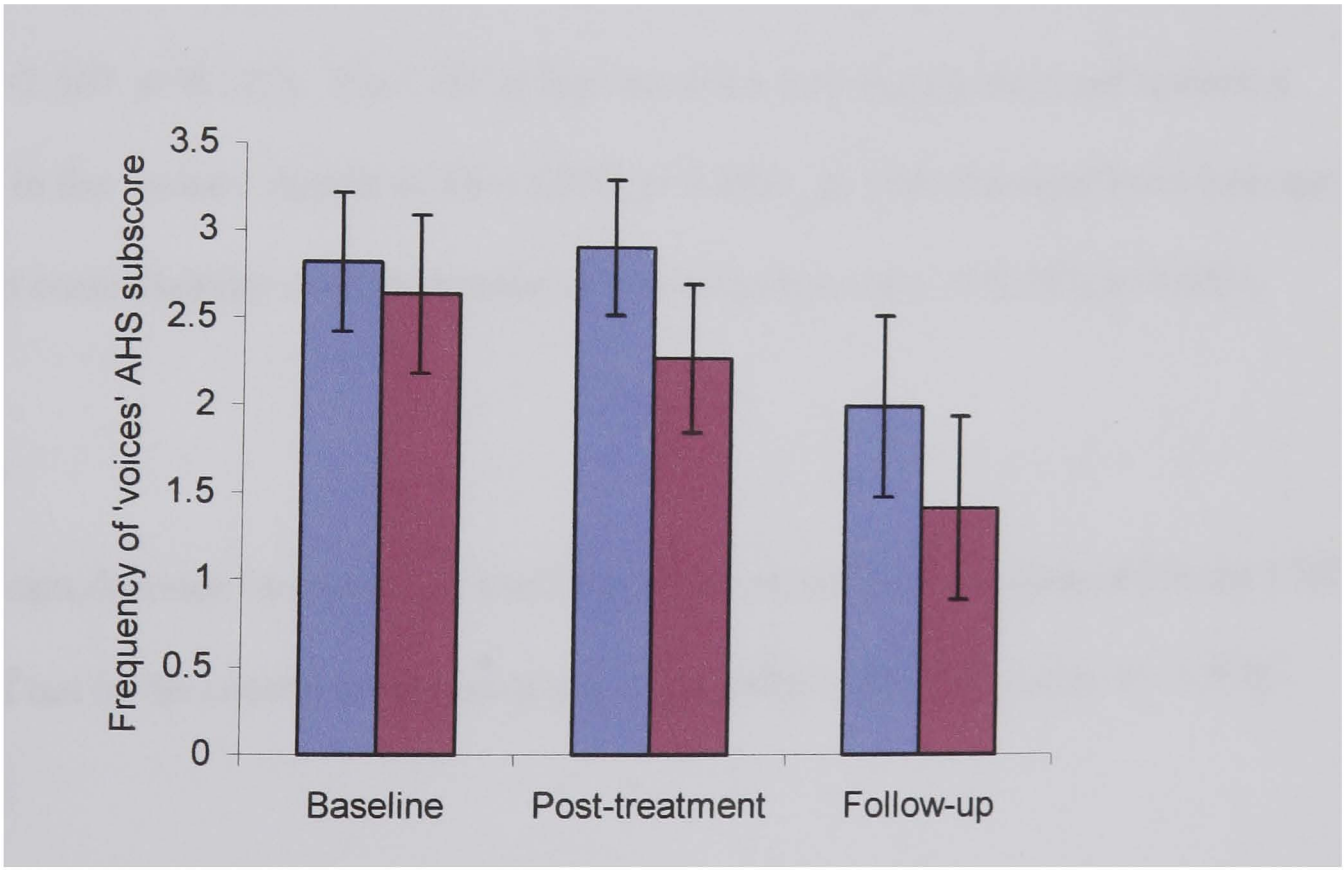

Figure 3. Frequency of auditory hallucinations (AHS subscore) comparing control with CBT group over time.

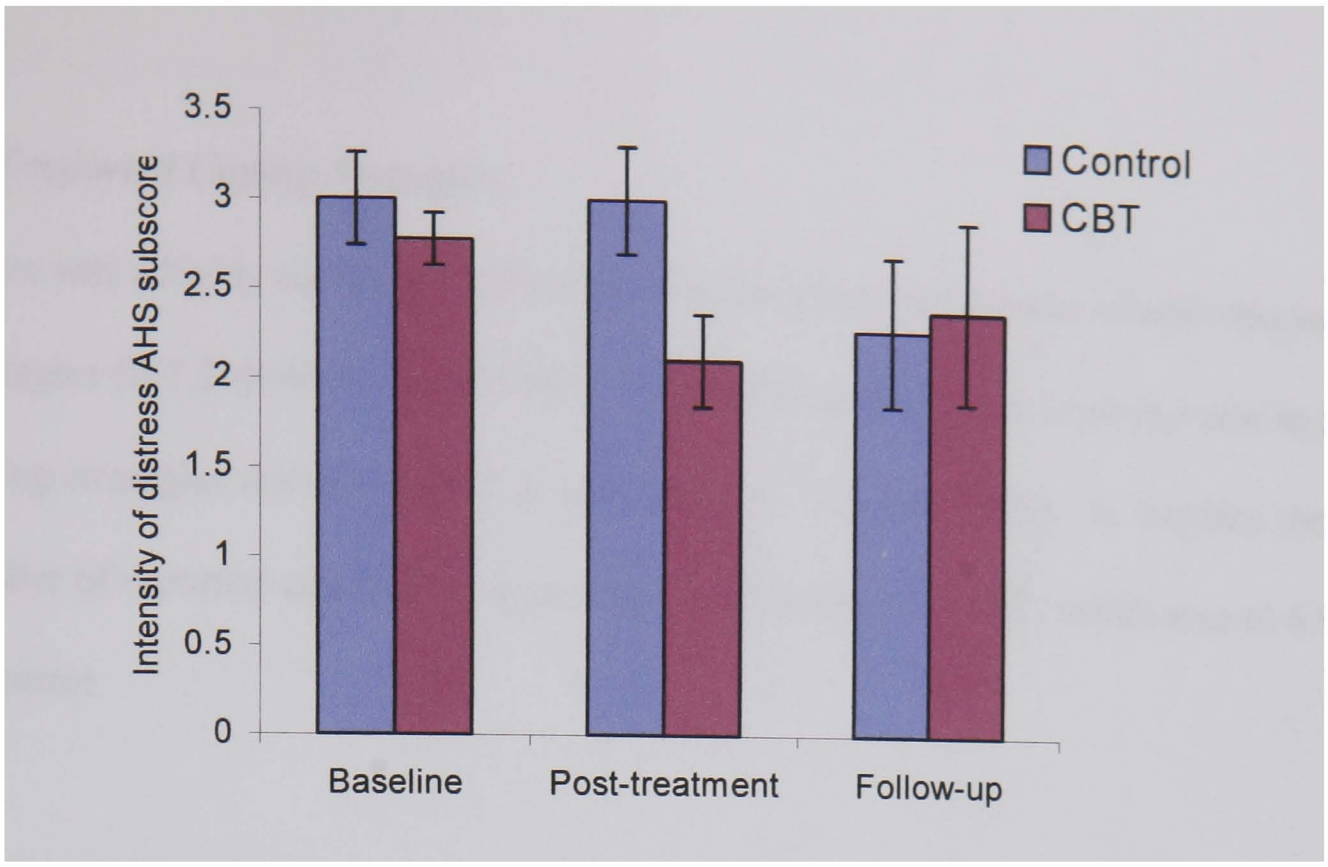

Figure 4. Intensity of distress caused by auditory hallucinations (AHS subscore) comparing control with CBT group over time.

There were also non-significant trends towards a difference between groups in the **duration** of auditory hallucinations ($F(1,16)=3.114$, $p=0.097$) and their perceived **controllability** ($F(1,20)=2.567$, $p=0.125$). The CBT group showed a non-significant trend towards a decrease in the 'voices' duration ($t(8)=1.890$, $p=0.095$), as well as a significant increase in perceived controllability over their auditory hallucinations ($t(11)t=2.283$, $p=0.043$).

BPRS-E

A significant decrease in number of total psychiatric symptoms was detected in the CBT group but not in the control group using a non-parametric test (Wilcoxon: $Z=-1.970$, $p=0.049$).

BAVQ

No significant differences were found between groups on the BAVQ.

Self-reported Coping Strategies

There was a highly significant difference between groups in number of self-reported coping strategies ($F(1,20)=44.454$, $p<0.0005$). This difference was due to an increase in effective coping strategies within the CBT group ($t(11)=-6.755$, $p<0.0005$). At baseline the mean number of reported coping strategies in the CBT group was 2.67, which rose to 6.92 post-treatment.

Mode of effect

Birchwood & Chadwick (1997) suggest that there is a relationship between the perceived power of the voices and the effect generated by the voices. Reductions in power should, therefore, have a beneficial effect on distress. This was tested with a partial correlation between the change in perceived power and the post-treatment levels of distress after controlling for pre-treatment levels which was significant for the CBT group (partial $r=-0.7303$, $p=0.040$) but not for the control group (partial $r=0.0236$, $p=0.952$).

4.3.2 Durability of the effects

Participant attrition rates were fairly low considering that by the two month follow-up assessment the majority of in-patients had been discharged and were living in the community. Nine out of the 12 original CBT group and 8 out of 11 control group participants took part in the follow-up assessment.

Follow-up data were analysed using separate analyses of covariance to detect differences between the two groups over assessment time 1 (baseline) and time 3 (follow-up). The score at time 3 was the dependent variable, the score at time 1 acted as the covariate, and group

was the fixed factor. Table 5 shows the results of paired t-tests conducted to investigate changes in scores for each group separately.

Table 5. Mean scores at Baseline (Time 1) and Follow-up (Time 3) for both groups

Measure	Control Group (n=8)			CBT Group (n=9)		
	Time 1 Mean (SD)	**Time 3** Mean (SD)	**Sig.**	**Time 1** Mean (SD)	**Time 3** Mean (SD)	**Sig.**
AHS Total	**34.3 (4.2)**	**32.6 (3.8)**	**NS**	**31.6 (4.2)**	**28.8 (5.9)**	**NS**
Frequency	2.8 (1.3)	2.0 (1.7)	NS	2.4 (1.6)	1.4 (1.8)	**
Duration	2.9 (1.1)	3.3 (0.76)	NS	3.2 (1.1)	3.0 (1.4)	NS
Loudness	2.1 (0.69)	2.3 (0.95)	NS	1.6 (0.55)	1.4 (0.55)	NS
Location	2.0 (1.0)	2.1 (0.90)	NS	1.4 (0.89)	1.6 (1.3)	NS
Beliefs re. Origin of 'Voices'	3.1 (1.1)	3.0 (1.1)	NS	2.6 (1.2)	2.7 (1.1)	NS
Amount of Negative Content	3.6 (0.54)	3.4 (0.54)	NS	3.0 (0.71)	2.8 (0.84)	NS
Degree of Negative Content	4.0 (0.00)	3.4 (0.79)	*	3.8 (0.45)	3.4 (0.89)	NS
Amount of Distress	3.7 (0.76)	3.3 (0.76)	*	3.0 (0.71)	2.2 (1.3)	*
Intensity of Distress	3.0 (1.0)	2.3 (1.1)	**	2.6 (0.55)	2.4 (1.1)	NS
Disruption	3.3 (0.49)	2.7 (0.95)	NS	3.2 (0.84)	2.2 (0.84)	**
Controllability	3.3 (0.71)	3.3 (0.46)	NS	3.0 (0.86)	2.7 (1.5)	NS
BAVQ						
Malevolence	13.0 (2.1)	10.4 (4.3)	NS	11.8 (4.0)	10.0 (4.9)	NS
Benevolence	0.88 (1.6)	2.6 (3.9)	*	2.0 (2.3)	4.6 (4.9)	NS
Omnipotence	11.0 (5.0)	10.1 (2.9)	NS	10.2 (2.3)	8.8 (3.5)	NS
Resistance	21.6 (2.8)	22.4 (4.0)	NS	16.4 (6.0)	17.7 (5.8)	NS
Engagement	0.75 (1.5)	2.1 (4.2)	NS	4.4 (5.0)	5.3 (5.9)	NS
Insight Scale Total	**10.3 (4.4)**	**9.3 (5.6)**	**NS**	**10.0 (3.6)**	**9.9 (3.7)**	**NS**
Symptom Attribution	2.3 (1.6)	2.0 (1.6)	NS	2.1 (1.4)	2.4 (1.7)	NS
Need for Treatment	2.8 (1.0)	2.6 (1.4)	NS	2.7 (0.94)	2.3 (1.0)	NS
Awareness of Illness	2.4 (1.5)	2.0 (1.6)	NS	2.4 (1.7)	2.8 (1.7)	NS
Coping Strategies Total	**2.4 (2.3)**	**1.9 (2.0)**	**NS**	**2.7 (2.6)**	**5.4 (2.2)**	**

*p=non-significant trend (>0.05 up to and including 0.14); **$p \leq 0.05$; ***$p<0.01$; NS=not significant
Significance levels were determined using paired t-tests for all variables.

AHS

There were no significant differences between groups at follow-up. Previous differences were no longer apparent in beliefs regarding origin of 'voices', frequency, intensity of distress, duration, and perceived controllability.

BAVQ

No significant differences were found between groups.

Self-reported Coping Strategies

There was a significant difference between groups in number of self-reported coping strategies ($F(1,14)=13.198$, $p=0.003$). This was due to an increased number of effective coping strategies being reported by the CBT group ($t(8)=-2.643$, $p=0.030$). At pre-treatment the mean number of reported coping strategies in the CBT group was 2.67, however it was 5.44 at follow-up. No such increase was reported by the control group.

4.4 Ability of psychiatric nursing staff to conduct CBT groups to the same standards as experienced clinical psychologists – aim (3)

CTS

Therapist ratings were obtained for the various group leaders, using an adapted version of the CTS. A total score, as well as General Skills and Specific CBT Skills subscores were reported (see Table 6). Scores varied little between groups run by individual clinical psychologists and nursing staff.

Table 6. Cognitive Therapy Scale ratings for group leaders during the 3 sessions.

	Session 1			Session 2			Session 3		
Group Leader	**GS**	**CBT**	**Total**	**GS**	**CBT**	**Total**	**GS**	**CBT**	**Total**
Clinical Psychologist #1	39/42	15/24	54/66	37/42	20/24	57/66	42/42	23/24	65/66
Clinical Psychologist #1	42	18	60	41	21	62	38	16	54
Clinical Psychologist #2	36	9	45	37	20	57	36	15	51
Nursing Staff	36	13	49	34	18	52	36	19	55

GS=General Skills, CBT=Specific CBT Skills, and Total=Overall ability of therapist to administer cognitive therapy

Adherence to Group Treatment Protocol Checklist

Nursing staff adhered more closely to group treatment protocol, as seen on the protocol checklist scores (in Table 7), where they obtained maximal points in sessions one and two. However, any differences between nursing staff and the two clinical psychologists appeared to be minimal.

Table 7. Adherence to Protocol Checklist

Group Leader	**Session 1** (8 main points)	**Session 2** (9 main points)	**Session 3** (7 main points)
Clinical Psychologist #1	7	6	5
Clinical Psychologist #1	7	9	3
Clinical Psychologist #2	6	7	6
Nursing Staff	8	9	6

5. DISCUSSION

5.1 Is it feasible to provide in-patients with short-term group CBT?

Conducting short-term group CBT with in-patients was found to be feasible. However, it was extremely difficult for the nursing staff to plan 3 CBT sessions within a two week period due to their chaotic work schedules. The two psychiatric nurses were rarely scheduled to work from 9am-5pm on similar days and often worked antisocial hours. Due to such obstacles, the nurses only managed to conduct one CBT group of three sessions duration, although they had originally planned to provide at least 2 or 3 treatment groups. Over the course of this study it became apparent that shiftwork prevented the provision of psychological treatment by nursing staff. It is therefore essential that staff receive the full support of their managers and are allotted time for such therapeutic work. Perhaps one solution would be to create nursing positions whose job descriptions prioritised psychological work by allocating fixed weekly therapeutic session times.

5.2 Were the CBT groups effective?

The CBT group appeared to be effective as it resulted in short-term improvement for group members, whereas those in the control group showed no significant improvements. A significant difference between groups was achieved on the main outcome measure. Those in the CBT group had significantly less severe auditory hallucinations at post-treatment. This was due in part to a decrease in the 'voices' frequency and the intensity of distress evoked, as well as a change in belief with more patients beginning to believe that their 'voice' was internally generated. In general, outcome research has demonstrated that CBT is effective for certain people in reducing AH-associated distress and increasing control, but not in

reducing the frequency of AH (Bouchard, Vallieres, Roy, & Maziade, 1996). However, distraction techniques, particularly those which involve auditory stimulation, such as humming, have been reported to reduce the frequency of AH (Green & Kinsbourne, 1989). Therefore, the unexpected drop in AH frequency within the treatment group may be explained by the fact that the CBT sessions often focussed on effective coping strategies and humming in particular.

There were also trends towards a decrease in the 'voice's' duration and perceived controllability over the 'voices' in CBT group members. Also, independent raters (the patient's psychiatrist) rated patients in the CBT groups as having fewer psychiatric symptoms post-treatment.

The number of self-reported coping strategies also significantly increased within the CBT group following treatment. Although the other therapeutic changes had disappeared by the follow-up assessment, this increase in coping strategies was maintained. Unfortunately, it was difficult to determine whether individuals were actually implementing all of these coping strategies on a daily basis or whether meeting with the investigator prompted them to remember all the strategies which had been discussed within the group sessions.

Several in-patients who were reluctant or frightened to talk about their auditory hallucinations because they believed their 'voices' would punish them for doing so, decided not to take part in the groups. It is impossible to know whether the CBT groups would have proven beneficial to these individuals or whether it was only effective to a more select group who were willing to attend the sessions. A difference in attitude towards the groups was also observed between in-patients who had just experienced their first auditory hallucinations

compared to those whose 'voices' were chronic. Those who were new to the experience appeared more eager to discuss their experiences, the possible causes, and to learn effective coping strategies. Future studies which have large group sizes will be able to explore such issues in greater depth.

Anecdotal evidence also supports the idea that the provision of group treatment results in an improvement in the therapeutic milieu of in-patient wards. For example, around the time these groups were first being organised, posters encouraging people who were hearing 'voices' to try using various psychological coping strategies, suddenly appeared on the ward. In addition, a service user who was not participating in the study commented on the positive effect the groups had had on the ward atmosphere. Changes in the staff's attitudes and relationships with patients were observed. In-patients reported feeling more satisfied with the care they were receiving from hospital staff. This has additional implications for clients' future engagement with services since clients who view mental health services as responding to need are more likely to utilise them.

In summary, the group treatment resulted in symptom improvement and increased coping for individual in-patients. However, associated benefits include the treatment of larger numbers of people, patient engagement with the health service and its staff members, as well as an improved in-patient ward environment.

5.3 Can nursing staff conduct CBT groups as well as experienced clinical psychologists?

In general, psychiatric nurses are used to encouraging medication compliance as the primary form of treatment for in-patients. However, before conducting group CBT for this study,

nurses first attended a training session which taught them a more general cognitive-behavioural approach to treatment. Even after receiving such specific training, it remains possible that nursing staff might find it too difficult to take on the role of more neutral observers within the therapeutic sessions as it differs from their usual role on the wards. However, data collected within this study suggests that psychiatric nursing staff can learn the necessary CBT skills reasonably well and are good at following the protocol. Nurses appear capable of conducting this particular type of group CBT to the same standards as experienced clinical psychologists. The fairly prescriptive nature of these treatment sessions should make it possible for mental health workers with little previous experience in this type of work to successfully conduct such groups.

Slight variations between CTS scores obtained by different group leaders may be explained in part by treatment group composition. For example, clinical psychologist #2 had 5 in-patients in the group, which was the largest number of group members, and this included one extremely verbose in-patient. As a result, this group leader spent a great deal of time ensuring that everyone had an equal opportunity to speak, which left less time for the application of more specific therapeutic skills. The nursing staff also had an unusual group. The 2 in-patients in their group both strongly advocated self-harming as an effective coping strategy and were troubled by histories of childhood sexual abuse. Therefore, the nursing staff focused much of their energy on keeping the sessions structured and preventing the discussion from becoming too emotionally charged.

It is also interesting to note that there appears to be a slight inverse relationship between adherence to the protocol checklist and the application of specific CBT techniques. It seems likely that following the group treatment protocol in an inclusive, structured manner may

leave less time available for the application of specific CBT strategies. Therefore, the individual group leader must decide how to balance these two important elements based on the needs of group members at each individual session.

5.4 Recommendations for future in-patient CBT groups

The combination of significant post-treatment improvements, the positive effect the group had on ward atmosphere, and the fact that patients themselves reported enjoying the groups all support the provision of future groups. However, relevant organisational issues should first be carefully considered. First, which in-patients should the groups be offered to and who should conduct the sessions? Group CBT sessions which are offered exclusively to patients with schizophrenia or schizoaffective disorder rather than mixed groups may work best because the experiences of hearing 'voices' are usually more similar. In the present study the CBT sessions also appeared to be of the most interest and benefit to people experiencing their first psychotic episode or hospital admission, thus these particular in-patients should be encouraged to attend. Nurses are not only capable of conducting such groups but are also in an ideal position to do so as they often have already established a relationship with many of the ward's in-patients and are aware of individual patient's particular difficulties. Therefore, it would be ideal if interested members of the ward's nursing staff were given a fixed block of time each week to conduct the groups. It is also possible that the CBT training, which the involved nurses receive, will alter staff attitudes towards patients and lead to other beneficial changes within the ward environment. In addition, these therapeutic sessions provide nursing staff and patients with an opportunity to establish more personal relationships with one another.

In this study the treatment group was kept to 3 sessions within a 2 week period because rapid hospital discharge would otherwise prevent many in-patients from attending all of the sessions. However, since the beneficial changes found in the CBT group post-treatment were not maintained at 2 month follow-up this suggests that the 'dose' of treatment was not sufficient for these patients. Further research should ensure that adequate 'doses' of therapy are received. Patients in this study received much less therapy time than chronic patients in the recent study by Tarrier and colleagues (1998) who had 24 sessions or the acute patients in the Drury, Birchwood, Cochrane, and MacMillan (1996a,b) study who received approximately 8 hours of therapy per week. Perhaps offering a total of 9 one hour sessions over a three week period would be a more adequate amount of treatment. A 'booster' session after a one month period might also prove useful. An increased number of sessions would allow group members to discuss topics in greater depth and to watch the entire 'Horizon's' video. The content of the sessions would not need to be altered.

5.5 Limitations of the present study

In general, there are many difficulties involved in conducting research on auditory hallucinations. For instance, auditory hallucinations are a subjective experience, which cannot be measured directly by objective instruments, thus studies are largely dependent on self-reporting. Few specialised instruments, with some exceptions being the BAVQ and AHS, have been developed to measure the various facets of auditory hallucinations.

The study has important design limitations, as well. Firstly, the patients were not randomly allocated to groups and it is possible that those who were recruited by ward staff to attend the CBT groups had more amenable problems or were different in other ways. A few such differences did become apparent at baseline assessment since the control group was found to

have more severe auditory hallucinations, which were louder, more negative, and more distressing, than the auditory hallucinations experienced by the CBT group. However, using analysis of covariance in the statistical analysis took account of such differences when investigating post-treatment and follow-up differences between groups.

Another limitation is that the assessor was not blind to group assignment. However, the assessor was an independent researcher who was not directly involved in the therapy. Although it is possible that some bias may have existed in the assessments, the bias could have been in either direction. In general, it is virtually impossible to maintain blind evaluation within psychological treatment trials as assessors are often exposed to information which indicates the nature of the treatment the participants have received.

In the present study it was not possible to control the prescribing of medication. Although patients in both groups appeared to be taking similar anti-psychotic medications, the medication details were not obtainable for two patients who were involved in ongoing drug trials. The design was also not able to control for the multiple treatments which participants may have been receiving as part of their standard care. However, based on the assessor's conversations with ward staff and examination of patients' notes, only one patient was found to be receiving extra psychological support. This member of the control group was receiving weekly individual cognitive therapy from one of the ward's psychiatric nurses. However, in general there were few differences between groups and medication would have helped both groups equally. One further criticism is of the present study's small sample sizes. In addition, several participants were lost to the follow-up assessment following hospital discharge. However, it may be argued that this was only a pilot investigation and therefore

conducted for explorative purposes. As significant between group differences were found post-treatment further, larger, studies are now justifiable.

6. CONCLUSION

The present study found that it was feasible to conduct CBT groups for in-patients experiencing distressing auditory hallucinations. Psychiatric nursing staff were capable of conducting these groups to the same standards as experienced clinical psychologists. Brief group CBT appeared to result in short-term benefits. Immediately after treatment CBT group members were rated by their psychiatrists as having fewer psychiatric symptoms. They also reported an increase in effective coping strategies and a decrease in the severity of their auditory hallucinations (which included a decrease in their 'voices' frequency and the intensity of distress evoked). The control group, who continued to receive standard care during this time period, showed no significant changes. At the two month follow-up assessment, CBT group members continued to report significantly more coping strategies than they had at the initial assessment. However, other previously reported changes were not maintained. It seems possible that offering in-patients more sessions of CBT may increase treatment effectiveness and lead to the maintenance of beneficial outcomes. Therefore, further investigation of this brief, cost-effective form of group treatment for in-patients is recommended.

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8. APPENDICES

I. Participant Information and Consent Form

II. CBT Group Sessions Protocol Checklist

III. Additional Demographic Data on Trial Participants

I. Participant Information Sheet and Consent Form

Information Sheet for Patients

GROUP TREATMENT FOR AUDITORY HALLUCINATIONS.

We are currently offering a new service, aimed at helping people learn to cope better with auditory hallucinations. This type of therapy has been shown to have beneficial effects. We are now conducting a treatment trial to further investigate these effects.

What is the therapy?
Some people with voices find that they still hear voices even though they take their medication. Hearing voices can often be distressing, and this can make everyday life more difficult. If you hear voices, then group therapy may help you to learn to control your voices. The therapy is provided in a group format, there are usually six to eight people in a group that also hear voices. The therapy is provided in three sessions, each lasting for one hour.

How do I get involved in the study?
If you decide you would like to take part we will make an appointment to see you so that we can get some information about your experience of hearing voices. You will then be invited to take part in the therapy. Everyone in the service will be asked to complete a set of questionnaires on three occasions and you will be paid £10 in total for completing them.

Where will this take place ?
Groups will be run on in-patient wards of the Maudsley Hospital.

Will I have to take part?
No, but we would be very grateful if you did. You are free to withdraw from the therapy or the assessments at any time for any reason. If you decide to do so, this will not affect any treatment that you receive in the future.

If you have any questions please contact Kim Ehntholt on 0171 919 3223 or speak to the nurses on the ward.

Project Leader:

Professor Til Wykes
Institute of Psychiatry

Patient consent form

The effects of treatment for people who hear "voices"

Some people hear voices or noises when there is no-one around and nothing to explain it. These voices can disappear following treatment for the disorder but for some people they remain despite taking adequate medication. Often these "voices" cause much distress and affect the person's ability to concentrate or can greatly interfere with the person's quality of life.

Recently, new psychological treatments have been developed which, in addition to medication, reduce the occurrence of distressing symptoms and also reduce the number of times people are admitted to hospital. Although they are known to help, they are generally only provided by highly qualified people and there are few of these sort of people available within the NHS. This means that few people can receive them. The purpose of this trial is to see if it is possible to provide these new psychological treatments to more people by making them more widely available. We hope to do this by providing a modification of the therapy in a group setting. If this form of therapy does help people with their voices it will then be made available in the NHS.

We would like to invite you to participate in this trial. If you agree to take part you will be allocated to either the new treatment group or the control group. In the treatment group you will be offered three sessions of treatment each of which last one hour. You will receive these sessions together with up to eight other people. If you are in the control group we will contact you to monitor your current problems, particularly your voices. All participants will be asked to complete a set of questionnaires on three occasions and you will be paid £10 in total for completing them.

Your consent to take part in the study is voluntary. If you decide not to participate or you withdraw from the trial at any time it will not affect your current or future treatment.

The effects of treatment for people who hear "voices"

I consent to taking part in this study (signed).....

Name printed .....

Witnessed signature .....

Name printed .....

Date .....

II. CBT Group Sessions Protocol Checklist

Session 1 Aims: • **Sharing Information About Voices**
• **Models of Psychosis**

1. Set Agenda

2. Introductions

- Introduce selves & the group's purpose (to talk about voices, the goal is to lower distress not to stop voices completely)
- Confidentiality (don't talk about what others have said outside of the group)

3. Show first 15 minutes of video (Horizon – 'Hearing Voices')

4. Ask what is the Same or Different about their Voices compared to the people in video

** Emphasise the similarities between group member's experiences**

- When did you begin to hear voices?
- How often do you hear your voices? How long do they usually last?
- Are they loud or quiet?
- What kind of things do they say?
- When do they usually happen? – When alone? At night? When not busy?
- How do the voices make you feel?
- Do you know anybody else who has the same experiences?

5. Introduce Normalising Rationale & Continuum of Experience

- Leaders relate any 'odd' experiences they may have had
- Many people hear voices
- Note wide experience of voice hearers in video
- Some people come into contact with services (40%) but others do not receive any help

6. Different Models/Views of Psychosis

** Ask group to comment on the issues covered in the video (people on the video had differing views)**

- Medical Model (chemical imbalance in the brain, illness, need medication to put it right although it doesn't always work)
- Psychological Model ('It's all in my head', 'It isn't real')
- Both Models Combined (use medication to reduce vulnerability so that you can talk about the voices)

7. What makes the Voices Better or Worse?

- When and where are the voices worse?
- What stops the voices or makes them less upsetting?

** Point out that they have some control**

a) Medication

- Is it helpful? If so, how? Risks/benefits?
- Does it get rid of the voices? Make them more bearable?

b) Other treatments for voices
- Does it help to talk about the voices?
- Does it help knowing that others share the same experiences?

8. Summarise the Group's Discussion

Session 2 Aims: • **Models of Hallucinations**
• **Effective Coping Strategies**

1. Set agenda

2. Show 15 minutes of the video

3. Models of Hallucinations
- Where do the voices sound like they are coming from – inside or outside your head?
- If they sound like they are coming from outside your head, why can't anybody else hear them?
- What do you think the voices are?
- What causes the voices? - The brain, spirits, Devil/God, other people's thoughts, your own thoughts?
- How should you treat the voices? What happens if you ignore or disobey them?

** Emphasise this point & ask about behavioural tests of any hypotheses**

4. Discussion of Stigma and Labelling
- Do you think that your symptoms are due to mental illness?
- Diagnosis: Does it help to know that the voices are due to an illness? *Or* is it better to think you are more 'sensitive' than others?
- Does the fact that you have 'different' experiences make you any worse than others?
- Is it hard to tell others that you hear voices? Who can you tell?

5. Methods of Coping
- What do you do to cope with the voices?
- How well do the strategies work?
- Have you tried any of the following strategies?

• Distraction – listening to music, watching TV, talking to somebody
• Increased or decreased stimulation
• Ignoring the commands of the voices
• Telling the voices to go away
• Postponing the voices until a later time in the day
• Focussing on the physical characteristics of voices- volume, tone, male/female, etc.
• Concentrating on a task – reading, playing chess
• Thinking about something nice/positive about yourself while you try to ignore voices
• **Humming** or singing to yourself

6. **The Role of Medication**
- Does it help? How is it helpful?
- If the issue arises spontaneously, you can suggest ways in which medicine can affect the brain neurochemistry and compare it to other effects e.g. pain relief. If necessary agree to get more information, such as that provided by the drug information service at the Maudsley.

7. **The Role of Recreational Drugs, including alcohol**
- Do these make the voices worse or better?
- Cannabis is worse than alcohol (it relaxes people *but* it also makes them more paranoid)

8. **Homework**
- Each patient is to try a new strategy for dealing with the voices

** Each patient writes one selected coping strategy down on an index card to take away as a reminder**

9. **Summarise the Group's Discussion and Remind of Homework**

Session 3 Aims: • **Improving Self-esteem**
• **Overall Model of Coping with Voices**

1. **Set Agenda**

2. **Feedback the Success of the New Strategies**
- Have new strategies been applied since the last meeting?
- If so, what did you do and was it helpful?
- Do the strategies need modifying?
- Do different members need to use different methods of coping?
- Are there any other coping strategies that you can think of?
- Encourage the experience of self-efficacy.

3. **Self-esteem**
- **Play the self-esteem game** using index cards but only if members are willing to comply.
- Does your mood affect the experience of voices, e.g. frequency, severity?
- Do the voices affect your mood, i.e. circular maintaining model?
- What do you think other people think about you?
- Discuss how group members can use the cards or think of positive things about themselves, especially when they hear the voices. Group members are encouraged to use the cards to help improve their mood or to remind themselves about their "good points".

4. **Homework**
- Try to modify coping strategies and encourage "positive thinking" with the use of the index card from the self-esteem game.

5. **Discuss Vulnerability-Stress Model**

- Write the model on the flip chart using the words used by group members.
- Identify with group members the different possible ways of helping to reduce these distressing experiences, e.g. medication for biological vulnerability, improving coping strategies, improving mood, decreasing stress in your life, etc. Often members want to write this onto a piece of paper to keep so ensure that there are enough writing tools available.

6. **Discuss how members experienced the group**

- What do you think you have learned?
- How many different methods of coping do you now know of? (Perhaps get patients to write down two different coping strategies, which they found most helpful, on index cards so that they can remember them more easily when they are experiencing their voices.)

7. **Summarise Discussion and Remind of Homework**

III. Additional Demographic Data on Trial Participants

	Control group (n=11)	CBT group (n=12)
Marital status		
Single	10	8
With partner	1	0
Separated	0	1
Divorced	0	3
Recent accommodation		
With partner	1	0
With parent or relative	1	2
Alone or in flat/house share	5	7
Supervised hostel	4	3
Educational background		
Left school without qualifications	5	8
A or O levels	0	2
Trade or technical training	3	0
Tertiary education (incomplete)	2	1
Tertiary diploma or certificate	1	1
Peak job status		
None	1	0
Unskilled	6	6
Semi-skilled	3	4
Skilled/Professional	0	2
Student	1	0